Supplementary Material for *"Big Data Approach to Batch Process Monitoring: Simultaneous Fault Detection and Diagnosis Using Nonlinear Support Vector Machine-based Feature Selection"*

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March 3, 2018

1 Supplementary Material

Table S1: Fault & Time-specific Model Performances with respect to the One-step Rolling Time Horizon Approach. The alternative models can be provided upon request.

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	2	0.86	5	0.81	0.25	0.85
1	3	0.50	10	0.49	0.52	0.48
1	4	0.62	48	0.59	0.43	0.63
1	5	0.77	7	0.70	0.37	0.76
1	6	0.67	38	0.64	0.39	0.69
1	7	0.65	124	0.55	0.56	0.56
1	8	0.54	29	0.48	0.58	0.48
1	9	0.63	28	0.63	0.38	0.68
1	10	0.62	9	0.56	0.50	0.59
1	11	0.71	48	0.56	0.59	0.60
1	12	0.70	1	0.52	0.66	0.55
1	13	0.67	37	0.58	0.51	0.62
1	14	0.57	10	0.54	0.49	0.55
1	15	0.74	2	0.56	0.63	0.58
1	16	0.57	8	0.55	0.46	0.56
1	17	0.88	12	0.51	0.85	0.51
1	18	0.63	33	0.62	0.40	0.67
1	19	0.51	28	0.49	0.54	0.47
1	20	0.57	26	0.59	0.40	0.62
1	21	0.69	30	0.67	0.35	0.73
1	22	0.68	36	0.68	0.33	0.75
1	23	0.73	28	0.73	0.27	0.80

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Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	24	0.61	42	0.67	0.26	0.74
1	25	0.68	44	0.68	0.32	0.76
1	26	0.72	32	0.74	0.25	0.82
1	27	0.67	44	0.69	0.29	0.76
1	28	0.63	38	0.70	0.23	0.77
1	29	0.67	37	0.72	0.23	0.80
1	30	0.69	41	0.71	0.26	0.79
1	31	0.64	57	0.71	0.22	0.79
1	32	0.61	34	0.70	0.21	0.77
1	33	0.61	27	0.73	0.15	0.78
1	34	0.62	40	0.72	0.18	0.78
1	35	0.54	2	0.77	0.01	0.83
1	36	0.58	3	0.79	0.01	0.87
1	37	0.62	23	0.74	0.14	0.81
1	38	0.62	3	0.80	0.02	0.86
1	39	0.63	37	0.74	0.14	0.81
1	40	0.59	2	0.79	0.01	0.87
1	41	0.61	37	0.75	0.11	0.81
1	42	0.62	2	0.80	0.02	0.87
1	43	0.58	2	0.79	0.01	0.86
1	44	0.60	2	0.79	0.01	0.86
1	45	0.61	2	0.80	0.01	0.87
1	46	0.61	2	0.80	0.01	0.87
1	47	0.62	2	0.79	0.04	0.86
1	48	0.64	2	0.81	0.02	0.88
1	49	0.61	7	0.80	0.00	0.88

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Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	50	0.67	2	0.83	0.01	0.89
1	51	0.65	2	0.81	0.02	0.88
1	52	0.66	2	0.82	0.02	0.88
1	53	0.64	3	0.81	0.02	0.87
1	54	0.61	10	0.80	0.00	0.88
1	55	0.66	3	0.82	0.02	0.88
1	56	0.65	3	0.81	0.03	0.87
1	57	0.68	2	0.82	0.03	0.89
1	58	0.65	17	0.83	0.00	0.91
1	59	0.65	3	0.81	0.03	0.88
1	60	0.66	16	0.83	0.00	0.91
1	61	0.65	4	0.82	0.01	0.88
1	62	0.65	20	0.82	0.00	0.92
1	63	0.66	17	0.83	0.00	0.93
1	64	0.65	14	0.82	0.01	0.90
1	65	0.68	16	0.84	0.00	0.92
1	66	0.66	18	0.83	0.00	0.93
1	67	0.66	17	0.83	0.00	0.92
1	68	0.66	17	0.83	0.00	0.92
1	69	0.64	11	0.82	0.00	0.92
1	70	0.67	15	0.83	0.00	0.93
1	71	0.63	17	0.82	0.00	0.92
1	72	0.63	16	0.82	0.00	0.93
1	73	0.60	18	0.80	0.00	0.93
1	74	0.67	21	0.83	0.00	0.93
1	75	0.67	20	0.84	0.00	0.92

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	76	0.69	19	0.85	0.00	0.93
1	77	0.68	13	0.84	0.00	0.92
1	78	0.62	14	0.81	0.00	0.91
1	79	0.68	3	0.84	0.00	0.91
1	80	0.69	25	0.84	0.00	0.92
1	81	0.67	23	0.84	0.00	0.92
1	82	0.67	26	0.83	0.00	0.91
1	83	0.67	24	0.84	0.00	0.91
1	84	0.68	11	0.84	0.00	0.91
1	85	0.68	22	0.84	0.00	0.91
1	86	0.68	4	0.84	0.01	0.90
1	87	0.67	19	0.83	0.01	0.90
1	88	0.66	20	0.83	0.00	0.94
1	89	0.66	23	0.83	0.01	0.90
1	90	0.65	25	0.83	0.00	0.93
1	91	0.66	23	0.83	0.00	0.94
1	92	0.68	10	0.84	0.00	0.96
1	93	0.66	13	0.83	0.00	0.95
1	94	0.67	15	0.84	0.00	0.95
1	95	0.65	30	0.82	0.00	0.92
1	96	0.66	32	0.83	0.00	0.92
1	97	0.66	30	0.83	0.00	0.91
1	98	0.68	10	0.84	0.00	0.95
1	99	0.66	27	0.83	0.00	0.92
1	100	0.67	29	0.83	0.00	0.92
1	101	0.64	31	0.82	0.00	0.91

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Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	102	0.66	7	0.83	0.00	0.94
1	103	0.66	7	0.83	0.00	0.94
1	104	0.64	31	0.82	0.00	0.90
1	105	0.66	31	0.83	0.00	0.91
1	106	0.67	30	0.83	0.00	0.92
1	107	0.68	5	0.84	0.00	0.95
1	108	0.68	31	0.84	0.00	0.92
1	109	0.68	6	0.84	0.00	0.95
1	110	0.69	5	0.84	0.00	0.95
1	111	0.69	6	0.84	0.00	0.95
1	112	0.68	6	0.84	0.00	0.95
1	113	0.69	5	0.84	0.00	0.95
1	114	0.73	43	0.79	0.15	0.87
1	115	0.68	31	0.84	0.00	0.94
1	116	0.68	27	0.84	0.00	0.93
1	117	0.68	6	0.84	0.00	0.95
1	118	0.68	34	0.84	0.00	0.92
1	119	0.68	6	0.84	0.00	0.92
1	120	0.67	26	0.84	0.00	0.93
2	2	0.78	10	0.73	0.31	0.83
2	3	0.42	5	0.49	0.45	0.50
2	4	0.61	136	0.53	0.55	0.54
2	5	0.75	1	0.55	0.65	0.58
2	6	0.90	138	0.50	0.90	0.46
2	7	0.67	1	0.55	0.56	0.58
2	8	0.59	141	0.55	0.49	0.54

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Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	9	0.72	1	0.54	0.64	0.67
2	10	0.66	24	0.65	0.37	0.68
2	11	0.81	122	0.50	0.81	0.51
2	12	0.55	16	0.53	0.50	0.53
2	13	0.87	22	0.50	0.87	0.50
2	14	0.68	15	0.49	0.69	0.49
2	15	0.61	40	0.61	0.39	0.65
2	16	0.79	99	0.52	0.76	0.76
2	17	0.60	46	0.60	0.40	0.64
2	18	0.65	51	0.64	0.37	0.70
2	19	0.68	43	0.66	0.35	0.73
2	20	0.67	40	0.67	0.34	0.73
2	21	0.69	56	0.68	0.33	0.77
2	22	0.68	35	0.67	0.34	0.74
2	23	0.68	20	0.69	0.30	0.75
2	24	0.65	53	0.71	0.23	0.78
2	25	0.72	34	0.73	0.25	0.82
2	26	0.68	48	0.72	0.24	0.80
2	27	0.64	39	0.74	0.17	0.81
2	28	0.70	30	0.74	0.22	0.82
2	29	0.65	55	0.73	0.19	0.80
2	30	0.68	51	0.73	0.22	0.82
2	31	0.70	31	0.74	0.22	0.81
2	32	0.66	47	0.68	0.30	0.75
2	33	0.73	24	0.78	0.17	0.85
2	34	0.67	52	0.72	0.23	0.79

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Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	35	0.63	29	0.75	0.13	0.82
2	36	0.70	40	0.75	0.20	0.83
2	37	0.65	35	0.75	0.16	0.82
2	38	0.63	44	0.73	0.18	0.80
2	39	0.68	35	0.74	0.21	0.81
2	40	0.63	39	0.73	0.17	0.81
2	41	0.62	50	0.72	0.17	0.80
2	42	0.66	37	0.76	0.13	0.83
2	43	0.63	1	0.80	0.04	0.84
2	44	0.63	4	0.79	0.05	0.84
2	45	0.65	7	0.81	0.03	0.84
2	46	0.68	34	0.74	0.20	0.82
2	47	0.72	28	0.77	0.17	0.84
2	48	0.69	18	0.79	0.11	0.85
2	49	0.66	8	0.82	0.02	0.85
2	50	0.66	6	0.82	0.03	0.87
2	51	0.65	1	0.82	0.01	0.87
2	52	0.65	1	0.82	0.02	0.87
2	53	0.68	26	0.71	0.27	0.78
2	54	0.69	24	0.76	0.18	0.83
2	55	0.65	6	0.82	0.01	0.87
2	56	0.66	1	0.83	0.01	0.90
2	57	0.67	7	0.83	0.01	0.89
2	58	0.68	28	0.72	0.24	0.79
2	59	0.70	9	0.84	0.01	0.90
2	60	0.66	35	0.71	0.24	0.78

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Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	61	0.67	1	0.83	0.01	0.92
2	62	0.73	4	0.84	0.04	0.90
2	63	0.68	7	0.83	0.02	0.91
2	64	0.75	9	0.87	0.01	0.92
2	65	0.73	1	0.86	0.01	0.93
2	66	0.67	1	0.83	0.01	0.92
2	67	0.74	8	0.86	0.02	0.92
2	68	0.68	6	0.84	0.00	0.91
2	69	0.65	7	0.82	0.00	0.92
2	70	0.67	1	0.83	0.00	0.94
2	71	0.73	7	0.86	0.02	0.92
2	72	0.67	1	0.83	0.00	0.93
2	73	0.67	1	0.84	0.00	0.94
2	74	0.71	7	0.84	0.02	0.91
2	75	0.74	9	0.86	0.01	0.93
2	76	0.74	8	0.86	0.02	0.93
2	77	0.72	12	0.85	0.01	0.93
2	78	0.67	1	0.84	0.00	0.94
2	79	0.69	1	0.84	0.00	0.93
2	80	0.70	8	0.84	0.01	0.92
2	81	0.69	1	0.85	0.00	0.95
2	82	0.67	1	0.83	0.00	0.94
2	83	0.75	11	0.87	0.00	0.94
2	84	0.67	28	0.72	0.22	0.79
2	85	0.75	1	0.87	0.02	0.94
2	86	0.67	1	0.84	0.00	0.94

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	87	0.74	11	0.86	0.01	0.93
2	88	0.70	9	0.85	0.00	0.93
2	89	0.72	11	0.86	0.01	0.93
2	90	0.67	3	0.83	0.01	0.91
2	91	0.74	7	0.86	0.02	0.93
2	92	0.67	6	0.83	0.00	0.91
2	93	0.69	6	0.84	0.00	0.92
2	94	0.67	1	0.83	0.00	0.94
2	95	0.72	6	0.85	0.01	0.92
2	96	0.77	11	0.88	0.01	0.94
2	97	0.67	1	0.84	0.00	0.94
2	98	0.72	10	0.86	0.00	0.94
2	99	0.70	9	0.85	0.00	0.93
2	100	0.74	11	0.87	0.00	0.94
2	101	0.66	1	0.83	0.00	0.94
2	102	0.75	11	0.87	0.01	0.94
2	103	0.74	10	0.87	0.00	0.93
2	104	0.70	10	0.85	0.00	0.94
2	105	0.68	1	0.84	0.00	0.95
2	106	0.71	8	0.85	0.00	0.94
2	107	0.70	7	0.85	0.00	0.93
2	108	0.69	11	0.85	0.00	0.94
2	109	0.66	1	0.83	0.00	0.94
2	110	0.71	7	0.85	0.01	0.93
2	111	0.67	1	0.84	0.00	0.94
2	112	0.67	1	0.83	0.00	0.94

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	113	0.67	1	0.84	0.00	0.95
2	114	0.75	10	0.87	0.00	0.93
2	115	0.75	11	0.87	0.01	0.94
2	116	0.75	9	0.87	0.01	0.94
2	117	0.77	11	0.88	0.02	0.94
2	118	0.67	1	0.84	0.00	0.94
2	119	0.71	10	0.85	0.00	0.94
2	120	0.66	1	0.83	0.00	0.95
3	2	0.99	35	0.99	0.01	1.00
3	3	0.95	17	0.98	0.00	1.00
3	4	0.94	16	0.97	0.00	0.99
3	5	0.99	22	1.00	0.00	1.00
3	6	0.94	21	0.97	0.01	1.00
3	7	0.96	31	0.97	0.01	0.99
3	8	0.87	33	0.92	0.03	0.97
3	9	0.92	4	0.96	0.00	0.99
3	10	0.90	4	0.95	0.00	0.99
3	11	0.90	17	0.95	0.00	0.98
3	12	0.94	3	0.97	0.00	1.00
3	13	0.92	5	0.96	0.00	0.99
3	14	0.93	36	0.96	0.01	0.99
3	15	0.94	14	0.97	0.00	1.00
3	16	0.88	5	0.94	0.01	0.98
3	17	0.92	22	0.96	0.01	0.99
3	18	0.90	24	0.95	0.01	0.98
3	19	0.93	10	0.96	0.01	0.98

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	20	0.96	15	0.98	0.01	1.00
3	21	0.95	9	0.97	0.01	0.99
3	22	0.94	2	0.97	0.00	0.99
3	23	0.94	7	0.97	0.00	0.99
3	24	0.91	1	0.95	0.00	0.99
3	25	0.95	1	0.97	0.00	0.98
3	26	0.94	33	0.96	0.01	0.99
3	27	0.93	22	0.96	0.01	0.99
3	28	0.96	9	0.98	0.01	0.99
3	29	0.96	33	0.98	0.00	0.99
3	30	0.96	10	0.98	0.01	0.99
3	31	0.96	1	0.97	0.02	0.99
3	32	0.98	1	0.98	0.02	1.00
3	33	0.97	10	0.98	0.02	1.00
3	34	0.97	31	0.98	0.02	1.00
3	35	0.95	11	0.97	0.01	0.99
3	36	0.98	8	0.99	0.01	1.00
3	37	0.96	7	0.98	0.01	0.99
3	38	0.96	14	0.98	0.00	0.99
3	39	0.98	12	0.98	0.02	1.00
3	40	0.96	9	0.98	0.01	0.99
3	41	0.97	1	0.98	0.01	1.00
3	42	0.97	1	0.98	0.01	1.00
3	43	0.97	18	0.98	0.01	1.00
3	44	0.97	11	0.98	0.01	1.00
3	45	0.97	13	0.98	0.01	1.00

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Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	46	0.98	1	0.99	0.00	1.00
3	47	0.97	16	0.98	0.01	0.99
3	48	0.97	10	0.98	0.01	1.00
3	49	0.96	15	0.98	0.01	0.99
3	50	0.97	14	0.98	0.00	1.00
3	51	0.96	1	0.98	0.01	1.00
3	52	0.97	10	0.98	0.00	1.00
3	53	0.96	1	0.98	0.00	1.00
3	54	0.96	16	0.97	0.01	0.99
3	55	0.95	10	0.97	0.01	0.99
3	56	0.97	11	0.98	0.01	0.99
3	57	0.96	1	0.98	0.01	1.00
3	58	0.97	16	0.98	0.00	1.00
3	59	0.97	1	0.98	0.01	1.00
3	60	0.96	9	0.98	0.00	0.99
3	61	0.97	1	0.98	0.01	1.00
3	62	0.97	9	0.98	0.00	1.00
3	63	0.97	10	0.98	0.01	1.00
3	64	0.97	10	0.98	0.00	1.00
3	65	0.97	1	0.98	0.01	1.00
3	66	0.95	7	0.97	0.01	0.99
3	67	0.97	1	0.98	0.01	1.00
3	68	0.97	1	0.98	0.01	1.00
3	69	0.97	1	0.98	0.01	1.00
3	70	0.96	1	0.98	0.01	1.00
3	71	0.97	16	0.98	0.01	1.00

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	72	0.96	10	0.98	0.01	0.99
3	73	0.97	7	0.98	0.01	1.00
3	74	0.97	1	0.98	0.00	1.00
3	75	0.98	1	0.99	0.00	1.00
3	76	0.97	1	0.98	0.01	1.00
3	77	0.97	1	0.98	0.01	1.00
3	78	0.97	1	0.98	0.01	1.00
3	79	0.95	12	0.97	0.01	1.00
3	80	0.97	7	0.98	0.00	1.00
3	81	0.97	11	0.98	0.01	1.00
3	82	0.97	1	0.98	0.01	1.00
3	83	0.98	1	0.98	0.01	1.00
3	84	0.97	1	0.98	0.01	1.00
3	85	0.97	1	0.98	0.01	1.00
3	86	0.96	1	0.98	0.00	1.00
3	87	0.97	11	0.98	0.01	1.00
3	88	0.97	1	0.98	0.01	1.00
3	89	0.97	1	0.98	0.00	1.00
3	90	0.96	10	0.97	0.01	0.99
3	91	0.96	1	0.98	0.00	1.00
3	92	0.96	1	0.98	0.01	1.00
3	93	0.96	1	0.98	0.00	1.00
3	94	0.96	9	0.98	0.00	1.00
3	95	0.97	13	0.98	0.01	1.00
3	96	0.96	1	0.98	0.00	1.00
3	97	0.97	11	0.98	0.00	1.00

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	98	0.98	13	0.99	0.00	1.00
3	99	0.97	12	0.99	0.00	1.00
3	100	0.96	1	0.98	0.01	1.00
3	101	0.96	1	0.98	0.01	1.00
3	102	0.97	11	0.98	0.01	1.00
3	103	0.96	13	0.98	0.00	1.00
3	104	0.96	9	0.98	0.01	1.00
3	105	0.97	11	0.98	0.00	1.00
3	106	0.98	1	0.98	0.01	1.00
3	107	0.97	1	0.98	0.01	1.00
3	108	0.97	12	0.98	0.00	1.00
3	109	0.97	1	0.99	0.00	1.00
3	110	0.97	1	0.98	0.01	1.00
3	111	0.97	1	0.98	0.01	1.00
3	112	0.97	11	0.98	0.00	1.00
3	113	0.97	1	0.98	0.00	1.00
3	114	0.98	1	0.99	0.00	1.00
3	115	0.96	1	0.98	0.01	1.00
3	116	0.97	14	0.99	0.00	1.00
3	117	0.97	1	0.98	0.01	1.00
3	118	0.97	11	0.98	0.01	1.00
3	119	0.97	1	0.98	0.01	1.00
3	120	0.97	11	0.98	0.01	1.00
4	2	0.83	51	0.79	0.25	0.84
4	3	0.69	23	0.67	0.34	0.74
4	4	0.74	19	0.74	0.26	0.81

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	5	0.81	47	0.78	0.24	0.87
4	6	0.86	1	0.62	0.63	0.61
4	7	0.81	20	0.81	0.19	0.90
4	8	0.81	46	0.83	0.15	0.90
4	9	0.82	27	0.84	0.14	0.91
4	10	0.82	62	0.85	0.12	0.91
4	11	0.82	32	0.90	0.03	0.96
4	12	0.86	14	0.91	0.03	0.96
4	13	0.85	31	0.92	0.02	0.96
4	14	0.90	13	0.93	0.04	0.97
4	15	0.92	37	0.96	0.01	0.99
4	16	0.90	40	0.95	0.01	0.98
4	17	0.93	58	0.96	0.01	0.99
4	18	0.93	26	0.96	0.00	0.99
4	19	0.90	14	0.95	0.00	0.98
4	20	0.91	26	0.96	0.00	0.98
4	21	0.89	30	0.93	0.02	0.98
4	22	0.90	53	0.93	0.05	0.98
4	23	0.89	57	0.94	0.00	0.98
4	24	0.89	43	0.94	0.00	0.98
4	25	0.95	38	0.97	0.02	0.99
4	26	0.92	40	0.95	0.01	0.99
4	27	0.89	38	0.95	0.00	0.99
4	28	0.92	42	0.96	0.01	0.99
4	29	0.92	24	0.96	0.01	0.99
4	30	0.96	29	0.97	0.01	0.99

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	31	0.92	13	0.95	0.03	0.98
4	32	0.93	34	0.96	0.01	0.99
4	33	0.94	46	0.96	0.01	0.99
4	34	0.92	32	0.95	0.01	0.98
4	35	0.92	14	0.96	0.01	0.99
4	36	0.93	12	0.96	0.01	0.99
4	37	0.94	26	0.96	0.01	0.99
4	38	0.94	25	0.96	0.01	0.99
4	39	0.95	30	0.97	0.00	1.00
4	40	0.93	40	0.96	0.01	0.99
4	41	0.94	25	0.96	0.01	0.99
4	42	0.93	22	0.96	0.01	0.99
4	43	0.94	18	0.97	0.01	0.99
4	44	0.94	20	0.97	0.01	0.99
4	45	0.95	28	0.97	0.02	0.99
4	46	0.95	10	0.96	0.02	0.99
4	47	0.95	16	0.97	0.00	0.99
4	48	0.93	12	0.96	0.01	0.99
4	49	0.94	34	0.97	0.00	0.99
4	50	0.95	32	0.97	0.01	0.99
4	51	0.95	17	0.97	0.00	0.99
4	52	0.94	16	0.97	0.00	0.99
4	53	0.95	12	0.97	0.01	1.00
4	54	0.95	15	0.98	0.00	0.99
4	55	0.95	12	0.97	0.00	0.99
4	56	0.95	21	0.97	0.01	0.99

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	57	0.96	12	0.98	0.00	1.00
4	58	0.95	27	0.97	0.01	1.00
4	59	0.95	13	0.98	0.00	1.00
4	60	0.96	20	0.98	0.00	0.99
4	61	0.94	12	0.97	0.00	0.99
4	62	0.96	12	0.98	0.00	0.99
4	63	0.97	12	0.98	0.01	1.00
4	64	0.95	12	0.97	0.01	1.00
4	65	0.95	11	0.97	0.01	0.99
4	66	0.96	12	0.98	0.01	1.00
4	67	0.96	14	0.98	0.01	1.00
4	68	0.95	13	0.98	0.00	1.00
4	69	0.96	16	0.98	0.00	1.00
4	70	0.96	12	0.98	0.01	1.00
4	71	0.95	19	0.97	0.00	0.99
4	72	0.95	14	0.97	0.00	0.99
4	73	0.97	12	0.98	0.01	1.00
4	74	0.94	55	0.97	0.01	0.99
4	75	0.95	12	0.98	0.00	1.00
4	76	0.95	29	0.97	0.01	0.99
4	77	0.96	12	0.98	0.00	1.00
4	78	0.97	12	0.98	0.00	1.00
4	79	0.97	12	0.99	0.00	1.00
4	80	0.94	55	0.96	0.01	0.99
4	81	0.95	12	0.97	0.00	1.00
4	82	0.95	19	0.97	0.00	1.00

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	83	0.94	67	0.97	0.01	0.99
4	84	0.96	14	0.98	0.00	0.99
4	85	0.95	12	0.97	0.00	1.00
4	86	0.96	13	0.98	0.01	1.00
4	87	0.96	38	0.98	0.01	1.00
4	88	0.97	13	0.98	0.00	1.00
4	89	0.95	12	0.97	0.00	1.00
4	90	0.98	13	0.99	0.00	1.00
4	91	0.96	16	0.98	0.00	1.00
4	92	0.93	97	0.95	0.02	0.99
4	93	0.96	19	0.98	0.01	1.00
4	94	0.96	12	0.98	0.01	1.00
4	95	0.95	40	0.97	0.01	0.99
4	96	0.97	12	0.98	0.01	1.00
4	97	0.93	56	0.96	0.01	0.99
4	98	0.96	13	0.98	0.01	1.00
4	99	0.95	37	0.97	0.01	0.99
4	100	0.96	27	0.98	0.01	1.00
4	101	0.96	12	0.98	0.00	1.00
4	102	0.96	13	0.98	0.01	1.00
4	103	0.95	13	0.97	0.00	1.00
4	104	0.96	13	0.98	0.01	1.00
4	105	0.93	59	0.96	0.01	0.99
4	106	0.96	12	0.98	0.00	1.00
4	107	0.96	12	0.97	0.02	1.00
4	108	0.97	21	0.98	0.00	1.00

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	109	0.94	74	0.96	0.01	0.99
4	110	0.94	90	0.96	0.02	0.99
4	111	0.97	21	0.98	0.00	1.00
4	112	0.93	80	0.96	0.02	0.99
4	113	0.96	21	0.98	0.01	1.00
4	114	0.97	22	0.98	0.01	1.00
4	115	0.97	24	0.98	0.00	1.00
4	116	0.93	88	0.96	0.02	0.99
4	117	0.97	12	0.99	0.00	1.00
4	118	0.95	45	0.97	0.01	1.00
4	119	0.95	35	0.97	0.01	1.00
4	120	0.93	79	0.96	0.02	0.99
5	2	0.78	115	0.60	0.67	0.66
5	3	0.51	10	0.50	0.50	0.49
5	4	0.66	134	0.50	0.66	0.46
5	5	0.70	140	0.55	0.60	0.58
5	6	0.79	72	0.47	0.85	0.43
5	7	0.71	19	0.69	0.33	0.76
5	8	0.73	87	0.58	0.58	0.61
5	9	0.67	1	0.58	0.51	0.61
5	10	0.62	16	0.64	0.33	0.69
5	11	0.70	24	0.66	0.38	0.72
5	12	0.94	38	0.50	0.95	0.56
5	13	0.64	22	0.64	0.36	0.70
5	14	0.66	40	0.65	0.37	0.69
5	15	0.55	70	0.53	0.59	0.53

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	16	0.68	4	0.62	0.43	0.65
5	17	0.67	141	0.50	0.67	0.55
5	18	0.84	31	0.50	0.85	0.48
5	19	0.86	132	0.50	0.85	0.63
5	20	0.60	3	0.52	0.55	0.53
5	21	0.82	5	0.91	0.00	0.96
5	22	0.86	5	0.93	0.01	0.97
5	23	0.83	7	0.91	0.00	0.96
5	24	0.84	9	0.92	0.00	0.97
5	25	0.83	9	0.92	0.00	0.96
5	26	0.84	5	0.92	0.00	0.93
5	27	0.85	2	0.93	0.00	0.96
5	28	0.84	1	0.92	0.00	0.96
5	29	0.81	9	0.90	0.00	0.96
5	30	0.81	3	0.91	0.00	0.94
5	31	0.78	5	0.89	0.00	0.95
5	32	0.78	3	0.89	0.00	0.94
5	33	0.77	2	0.89	0.00	0.95
5	34	0.75	1	0.88	0.00	0.93
5	35	0.77	1	0.89	0.00	0.95
5	36	0.78	3	0.89	0.00	0.95
5	37	0.76	4	0.88	0.00	0.94
5	38	0.74	2	0.87	0.00	0.93
5	39	0.73	1	0.87	0.00	0.92
5	40	0.73	4	0.86	0.00	0.92
5	41	0.70	1	0.85	0.00	0.92

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	42	0.70	1	0.85	0.00	0.91
5	43	0.69	4	0.84	0.00	0.91
5	44	0.70	1	0.85	0.00	0.92
5	45	0.71	2	0.86	0.00	0.91
5	46	0.73	3	0.86	0.00	0.91
5	47	0.72	1	0.86	0.00	0.90
5	48	0.72	1	0.86	0.00	0.90
5	49	0.72	2	0.86	0.00	0.90
5	50	0.70	2	0.85	0.00	0.90
5	51	0.69	6	0.85	0.00	0.90
5	52	0.68	4	0.84	0.00	0.89
5	53	0.68	1	0.84	0.00	0.89
5	54	0.68	1	0.84	0.00	0.89
5	55	0.69	12	0.85	0.00	0.89
5	56	0.68	8	0.84	0.00	0.89
5	57	0.70	5	0.85	0.00	0.89
5	58	0.71	4	0.86	0.00	0.89
5	59	0.70	9	0.85	0.00	0.89
5	60	0.70	4	0.85	0.00	0.88
5	61	0.70	4	0.85	0.00	0.88
5	62	0.68	109	0.74	0.20	0.81
5	63	0.71	2	0.85	0.00	0.88
5	64	0.71	2	0.85	0.00	0.88
5	65	0.70	2	0.85	0.00	0.87
5	66	0.70	3	0.85	0.00	0.88
5	67	0.68	1	0.84	0.00	0.86

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	68	0.69	5	0.84	0.00	0.87
5	69	0.69	3	0.85	0.00	0.87
5	70	0.68	1	0.84	0.01	0.85
5	71	0.68	2	0.84	0.00	0.86
5	72	0.68	4	0.84	0.00	0.86
5	73	0.70	1	0.85	0.00	0.86
5	74	0.69	3	0.84	0.00	0.87
5	75	0.69	1	0.84	0.01	0.86
5	76	0.68	2	0.84	0.00	0.85
5	77	0.69	3	0.84	0.00	0.87
5	78	0.68	3	0.84	0.00	0.85
5	79	0.68	2	0.84	0.00	0.86
5	80	0.68	2	0.84	0.00	0.87
5	81	0.69	4	0.84	0.00	0.86
5	82	0.70	3	0.85	0.00	0.87
5	83	0.70	3	0.85	0.00	0.86
5	84	0.71	5	0.86	0.00	0.88
5	85	0.72	2	0.86	0.00	0.87
5	86	0.74	2	0.87	0.00	0.89
5	87	0.74	6	0.87	0.00	0.88
5	88	0.76	2	0.88	0.00	0.90
5	89	0.75	3	0.88	0.00	0.89
5	90	0.77	3	0.89	0.00	0.91
5	91	0.79	3	0.89	0.00	0.91
5	92	0.80	3	0.90	0.00	0.92
5	93	0.80	1	0.90	0.01	0.91

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	94	0.82	1	0.90	0.01	0.93
5	95	0.82	3	0.91	0.00	0.92
5	96	0.83	2	0.92	0.00	0.93
5	97	0.83	3	0.91	0.01	0.93
5	98	0.84	1	0.92	0.01	0.94
5	99	0.85	3	0.92	0.01	0.95
5	100	0.87	3	0.93	0.00	0.95
5	101	0.89	3	0.94	0.01	0.96
5	102	0.89	1	0.94	0.01	0.97
5	103	0.90	3	0.94	0.01	0.97
5	104	0.91	1	0.95	0.01	0.97
5	105	0.92	4	0.96	0.00	0.98
5	106	0.92	5	0.96	0.00	0.98
5	107	0.93	5	0.96	0.00	0.99
5	108	0.94	6	0.97	0.00	1.00
5	109	0.93	6	0.96	0.00	0.99
5	110	0.95	4	0.97	0.00	1.00
5	111	0.95	6	0.97	0.00	1.00
5	112	0.96	6	0.98	0.00	1.00
5	113	0.97	4	0.98	0.00	1.00
5	114	0.97	3	0.98	0.00	1.00
5	115	0.97	6	0.98	0.00	1.00
5	116	0.98	5	0.99	0.00	1.00
5	117	0.97	4	0.99	0.00	1.00
5	118	0.97	7	0.99	0.00	1.00
5	119	0.98	5	0.99	0.00	1.00

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	120	0.98	3	0.99	0.00	1.00
6	2	0.85	13	0.49	0.87	0.70
6	3	0.69	43	0.67	0.34	0.72
6	4	0.59	16	0.51	0.56	0.51
6	5	0.70	68	0.68	0.34	0.73
6	6	0.85	50	0.49	0.88	0.43
6	7	0.59	15	0.66	0.26	0.71
6	8	0.67	22	0.67	0.33	0.73
6	9	0.82	85	0.62	0.58	0.67
6	10	0.48	2	0.63	0.21	0.66
6	11	0.58	44	0.65	0.28	0.74
6	12	0.78	103	0.61	0.57	0.65
6	13	0.67	37	0.67	0.33	0.75
6	14	0.66	53	0.66	0.34	0.73
6	15	0.64	80	0.66	0.32	0.72
6	16	0.66	32	0.67	0.33	0.74
6	17	0.72	49	0.71	0.29	0.79
6	18	0.52	36	0.67	0.17	0.74
6	19	0.68	32	0.67	0.35	0.74
6	20	0.59	26	0.70	0.19	0.77
6	21	0.66	5	0.80	0.05	0.84
6	22	0.67	31	0.76	0.15	0.83
6	23	0.66	8	0.81	0.03	0.88
6	24	0.67	3	0.82	0.02	0.88
6	25	0.65	4	0.82	0.01	0.90
6	26	0.70	25	0.72	0.26	0.79

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	27	0.67	31	0.69	0.30	0.76
6	28	0.66	1	0.83	0.00	0.93
6	29	0.71	5	0.86	0.00	0.92
6	30	0.67	32	0.70	0.28	0.77
6	31	0.69	2	0.85	0.00	0.91
6	32	0.60	3	0.80	0.00	0.89
6	33	0.65	32	0.65	0.35	0.72
6	34	0.63	10	0.82	0.00	0.92
6	35	0.63	5	0.82	0.00	0.92
6	36	0.68	4	0.84	0.00	0.91
6	37	0.62	1	0.81	0.00	0.91
6	38	0.65	9	0.82	0.00	0.93
6	39	0.67	6	0.83	0.00	0.93
6	40	0.68	3	0.84	0.00	0.94
6	41	0.69	1	0.84	0.00	0.92
6	42	0.62	3	0.81	0.00	0.94
6	43	0.68	5	0.84	0.00	0.94
6	44	0.70	3	0.85	0.00	0.95
6	45	0.74	2	0.87	0.00	0.93
6	46	0.65	39	0.66	0.32	0.73
6	47	0.62	1	0.81	0.00	0.93
6	48	0.67	3	0.84	0.00	0.94
6	49	0.61	5	0.81	0.00	0.94
6	50	0.66	5	0.83	0.00	0.94
6	51	0.66	2	0.83	0.00	0.93
6	52	0.62	3	0.81	0.00	0.93

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	53	0.65	2	0.82	0.00	0.93
6	54	0.59	24	0.64	0.31	0.70
6	55	0.65	1	0.82	0.00	0.93
6	56	0.65	2	0.83	0.00	0.94
6	57	0.60	1	0.80	0.00	0.94
6	58	0.64	3	0.82	0.00	0.94
6	59	0.73	2	0.86	0.00	0.93
6	60	0.50	3	0.75	0.00	0.94
6	61	0.66	3	0.83	0.00	0.95
6	62	0.66	1	0.83	0.00	0.94
6	63	0.74	2	0.87	0.00	0.95
6	64	0.68	5	0.84	0.01	0.94
6	65	0.61	58	0.63	0.35	0.68
6	66	0.74	2	0.87	0.00	0.95
6	67	0.65	2	0.83	0.00	0.95
6	68	0.65	2	0.83	0.00	0.94
6	69	0.65	2	0.83	0.00	0.95
6	70	0.65	1	0.82	0.00	0.94
6	71	0.65	2	0.83	0.00	0.95
6	72	0.65	1	0.82	0.00	0.94
6	73	0.73	2	0.86	0.00	0.94
6	74	0.64	2	0.82	0.00	0.95
6	75	0.71	2	0.85	0.00	0.95
6	76	0.63	3	0.81	0.00	0.95
6	77	0.60	31	0.61	0.38	0.66
6	78	0.60	1	0.80	0.00	0.95

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	79	0.62	4	0.81	0.00	0.96
6	80	0.62	1	0.81	0.00	0.95
6	81	0.72	9	0.86	0.00	0.96
6	82	0.62	1	0.81	0.00	0.95
6	83	0.62	4	0.81	0.00	0.95
6	84	0.73	1	0.87	0.00	0.95
6	85	0.74	1	0.87	0.00	0.96
6	86	0.63	1	0.82	0.00	0.96
6	87	0.74	2	0.87	0.00	0.97
6	88	0.62	1	0.81	0.00	0.96
6	89	0.62	1	0.81	0.00	0.96
6	90	0.63	1	0.81	0.00	0.96
6	91	0.62	2	0.81	0.00	0.97
6	92	0.62	1	0.81	0.00	0.96
6	93	0.63	3	0.81	0.00	0.96
6	94	0.64	1	0.82	0.00	0.96
6	95	0.63	4	0.81	0.00	0.97
6	96	0.63	1	0.82	0.00	0.96
6	97	0.62	2	0.81	0.00	0.97
6	98	0.67	6	0.84	0.00	0.95
6	99	0.63	1	0.82	0.00	0.96
6	100	0.62	1	0.81	0.00	0.96
6	101	0.58	1	0.79	0.00	0.96
6	102	0.63	2	0.81	0.00	0.97
6	103	0.68	1	0.84	0.00	0.97
6	104	0.64	1	0.82	0.00	0.96

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	105	0.62	2	0.81	0.00	0.97
6	106	0.69	1	0.84	0.00	0.97
6	107	0.62	2	0.81	0.00	0.97
6	108	0.60	2	0.80	0.00	0.98
6	109	0.64	1	0.82	0.00	0.98
6	110	0.66	2	0.83	0.00	0.98
6	111	0.70	1	0.85	0.00	0.98
6	112	0.71	5	0.85	0.00	0.99
6	113	0.65	1	0.83	0.00	0.99
6	114	0.71	1	0.86	0.00	0.99
6	115	0.78	2	0.89	0.00	0.99
6	116	0.66	2	0.83	0.00	0.99
6	117	0.67	1	0.84	0.00	0.99
6	118	0.73	1	0.86	0.00	1.00
6	119	0.68	1	0.84	0.00	0.99
6	120	0.67	1	0.84	0.00	0.99
7	2	1.00	1	1.00	0.00	1.00
7	3	1.00	1	1.00	0.00	1.00
7	4	0.93	2	0.96	0.00	0.99
7	5	0.90	11	0.95	0.00	0.97
7	6	0.89	1	0.94	0.00	0.98
7	7	0.83	1	0.92	0.00	0.99
7	8	0.90	2	0.95	0.00	0.99
7	9	0.84	10	0.92	0.00	0.98
7	10	0.90	1	0.95	0.00	0.99
7	11	0.85	5	0.93	0.00	0.97

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	12	0.97	1	0.99	0.00	1.00
7	13	0.86	2	0.93	0.00	0.98
7	14	0.95	1	0.98	0.00	0.98
7	15	0.98	1	0.99	0.00	0.99
7	16	0.97	1	0.99	0.00	0.99
7	17	0.97	1	0.99	0.00	0.99
7	18	0.97	1	0.98	0.00	0.99
7	19	0.99	2	0.99	0.00	0.99
7	20	0.98	1	0.99	0.00	1.00
7	21	0.97	1	0.99	0.00	0.99
7	22	0.98	1	0.99	0.00	0.99
7	23	0.98	2	0.99	0.00	1.00
7	24	0.98	2	0.99	0.00	0.99
7	25	0.98	2	0.99	0.00	1.00
7	26	0.99	2	0.99	0.00	1.00
7	27	0.99	4	0.99	0.00	0.99
7	28	0.97	2	0.99	0.00	0.99
7	29	1.00	3	1.00	0.00	1.00
7	30	0.99	1	1.00	0.00	1.00
7	31	0.99	4	0.99	0.00	1.00
7	32	0.98	2	0.99	0.00	0.99
7	33	0.98	4	0.99	0.00	0.99
7	34	0.99	2	1.00	0.00	1.00
7	35	1.00	4	1.00	0.00	1.00
7	36	0.99	3	1.00	0.00	1.00
7	37	0.98	1	0.99	0.00	0.99

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	38	1.00	2	1.00	0.00	1.00
7	39	0.99	4	1.00	0.00	1.00
7	40	0.98	1	0.99	0.00	0.99
7	41	0.97	7	0.98	0.00	1.00
7	42	0.99	3	1.00	0.00	1.00
7	43	0.97	6	0.98	0.00	1.00
7	44	0.99	2	0.99	0.00	0.99
7	45	0.98	6	0.99	0.00	1.00
7	46	0.99	2	0.99	0.00	0.99
7	47	0.96	9	0.98	0.00	0.99
7	48	0.99	1	1.00	0.00	1.00
7	49	0.99	2	0.99	0.00	0.99
7	50	0.99	1	1.00	0.00	0.99
7	51	0.99	2	1.00	0.00	1.00
7	52	1.00	2	1.00	0.00	1.00
7	53	1.00	3	1.00	0.00	1.00
7	54	1.00	7	1.00	0.00	1.00
7	55	0.99	2	1.00	0.00	1.00
7	56	1.00	2	1.00	0.00	1.00
7	57	0.97	8	0.98	0.00	1.00
7	58	0.99	1	1.00	0.00	1.00
7	59	0.99	2	1.00	0.00	1.00
7	60	1.00	3	1.00	0.00	1.00
7	61	0.99	2	1.00	0.00	1.00
7	62	1.00	4	1.00	0.00	1.00
7	63	0.99	2	1.00	0.00	1.00

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	64	0.99	4	1.00	0.00	1.00
7	65	0.99	3	1.00	0.00	1.00
7	66	0.99	2	1.00	0.00	1.00
7	67	0.99	2	1.00	0.00	1.00
7	68	0.99	1	1.00	0.00	1.00
7	69	0.99	3	1.00	0.00	1.00
7	70	0.94	1	0.97	0.00	1.00
7	71	1.00	1	1.00	0.00	1.00
7	72	1.00	2	1.00	0.00	1.00
7	73	0.99	2	1.00	0.00	1.00
7	74	0.99	3	1.00	0.00	1.00
7	75	0.99	2	1.00	0.00	1.00
7	76	1.00	2	1.00	0.00	1.00
7	77	0.99	1	1.00	0.00	1.00
7	78	0.99	5	1.00	0.00	1.00
7	79	0.99	2	1.00	0.00	1.00
7	80	1.00	3	1.00	0.00	1.00
7	81	1.00	5	1.00	0.00	1.00
7	82	1.00	3	1.00	0.00	1.00
7	83	0.99	3	1.00	0.00	1.00
7	84	1.00	6	1.00	0.00	1.00
7	85	1.00	3	1.00	0.00	1.00
7	86	1.00	5	1.00	0.00	1.00
7	87	1.00	9	1.00	0.00	1.00
7	88	1.00	3	1.00	0.00	1.00
7	89	1.00	2	1.00	0.00	1.00

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	90	1.00	3	1.00	0.00	1.00
7	91	1.00	2	1.00	0.00	1.00
7	92	1.00	2	1.00	0.00	1.00
7	93	0.99	2	1.00	0.00	1.00
7	94	0.99	3	1.00	0.00	1.00
7	95	0.99	5	1.00	0.00	1.00
7	96	1.00	2	1.00	0.00	1.00
7	97	1.00	2	1.00	0.00	1.00
7	98	1.00	3	1.00	0.00	1.00
7	99	1.00	1	1.00	0.00	1.00
7	100	1.00	3	1.00	0.00	1.00
7	101	1.00	3	1.00	0.00	1.00
7	102	1.00	5	1.00	0.00	1.00
7	103	1.00	4	1.00	0.00	1.00
7	104	1.00	2	1.00	0.00	1.00
7	105	1.00	2	1.00	0.00	1.00
7	106	1.00	3	1.00	0.00	1.00
7	107	1.00	6	1.00	0.00	1.00
7	108	1.00	1	1.00	0.00	1.00
7	109	1.00	9	1.00	0.00	1.00
7	110	1.00	3	1.00	0.00	1.00
7	111	1.00	8	1.00	0.00	1.00
7	112	1.00	1	1.00	0.00	1.00
7	113	1.00	1	1.00	0.00	1.00
7	114	1.00	1	1.00	0.00	1.00
7	115	1.00	9	1.00	0.00	1.00

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	116	1.00	5	1.00	0.00	1.00
7	117	1.00	1	1.00	0.00	1.00
7	118	1.00	5	1.00	0.00	1.00
7	119	1.00	1	1.00	0.00	1.00
7	120	1.00	9	1.00	0.00	1.00
8	2	0.82	37	0.87	0.08	0.94
8	3	0.75	12	0.83	0.09	0.91
8	4	0.77	16	0.83	0.11	0.89
8	5	0.93	5	0.91	0.10	0.98
8	6	0.75	27	0.83	0.09	0.89
8	7	0.70	15	0.81	0.09	0.89
8	8	0.75	16	0.82	0.10	0.91
8	9	0.75	8	0.83	0.08	0.89
8	10	0.83	24	0.84	0.14	0.92
8	11	0.78	50	0.82	0.14	0.90
8	12	0.84	28	0.88	0.09	0.94
8	13	0.85	24	0.87	0.12	0.94
8	14	0.77	57	0.82	0.13	0.89
8	15	0.74	59	0.74	0.25	0.83
8	16	0.75	26	0.82	0.11	0.89
8	17	0.76	29	0.81	0.14	0.88
8	18	0.75	45	0.76	0.23	0.84
8	19	0.73	115	0.74	0.25	0.83
8	20	0.70	16	0.77	0.15	0.84
8	21	0.83	26	0.86	0.11	0.93
8	22	0.91	8	0.95	0.00	0.97

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	23	0.82	35	0.85	0.12	0.92
8	24	0.90	2	0.94	0.02	0.98
8	25	0.90	16	0.93	0.04	0.97
8	26	0.91	19	0.95	0.01	0.98
8	27	0.90	2	0.95	0.00	0.98
8	28	0.92	3	0.96	0.01	0.98
8	29	0.91	2	0.96	0.00	0.98
8	30	0.93	10	0.95	0.03	0.99
8	31	0.94	20	0.97	0.00	0.99
8	32	0.92	33	0.96	0.00	0.99
8	33	0.95	7	0.98	0.00	0.99
8	34	0.96	2	0.98	0.00	1.00
8	35	0.95	2	0.97	0.01	1.00
8	36	0.92	24	0.96	0.00	0.99
8	37	0.95	2	0.98	0.00	0.99
8	38	0.93	2	0.97	0.00	0.98
8	39	0.94	27	0.97	0.00	0.99
8	40	0.94	9	0.97	0.00	0.99
8	41	0.93	2	0.96	0.00	0.99
8	42	0.95	4	0.97	0.00	0.99
8	43	0.94	3	0.97	0.00	0.99
8	44	0.95	4	0.97	0.00	0.99
8	45	0.96	2	0.98	0.00	1.00
8	46	0.96	14	0.98	0.00	0.99
8	47	0.95	3	0.97	0.01	0.99
8	48	0.94	3	0.97	0.00	0.99

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	49	0.95	3	0.98	0.00	0.99
8	50	0.96	3	0.98	0.00	0.99
8	51	0.96	11	0.98	0.00	0.99
8	52	0.96	2	0.98	0.00	0.99
8	53	0.97	21	0.98	0.00	1.00
8	54	0.96	14	0.98	0.00	0.99
8	55	0.95	4	0.97	0.00	0.99
8	56	0.95	4	0.98	0.00	0.99
8	57	0.96	4	0.98	0.00	0.99
8	58	0.96	3	0.98	0.00	0.99
8	59	0.97	20	0.98	0.00	0.99
8	60	0.96	4	0.98	0.00	1.00
8	61	0.96	7	0.98	0.00	0.99
8	62	0.96	22	0.98	0.01	0.99
8	63	0.96	22	0.98	0.01	0.99
8	64	0.97	20	0.98	0.00	1.00
8	65	0.96	14	0.98	0.00	0.99
8	66	0.96	34	0.98	0.01	0.99
8	67	0.96	14	0.98	0.00	1.00
8	68	0.97	21	0.98	0.01	0.99
8	69	0.95	15	0.98	0.00	0.99
8	70	0.95	5	0.98	0.00	0.99
8	71	0.96	7	0.98	0.00	1.00
8	72	0.96	10	0.98	0.00	0.99
8	73	0.96	18	0.98	0.00	0.99
8	74	0.95	3	0.97	0.01	0.99

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	75	0.95	31	0.97	0.00	0.99
8	76	0.95	6	0.97	0.00	0.99
8	77	0.96	28	0.98	0.00	0.99
8	78	0.96	6	0.98	0.00	0.99
8	79	0.95	26	0.97	0.00	0.99
8	80	0.95	34	0.97	0.00	0.99
8	81	0.96	28	0.98	0.00	1.00
8	82	0.96	32	0.98	0.01	1.00
8	83	0.96	3	0.98	0.01	1.00
8	84	0.95	34	0.97	0.00	0.99
8	85	0.95	27	0.97	0.00	0.99
8	86	0.95	34	0.97	0.00	1.00
8	87	0.95	31	0.98	0.00	0.99
8	88	0.95	34	0.98	0.00	0.99
8	89	0.96	40	0.98	0.00	1.00
8	90	0.94	33	0.97	0.00	0.99
8	91	0.96	4	0.97	0.01	0.99
8	92	0.96	40	0.98	0.00	1.00
8	93	0.95	13	0.97	0.01	0.99
8	94	0.96	30	0.98	0.00	0.99
8	95	0.96	35	0.98	0.00	1.00
8	96	0.95	26	0.97	0.01	1.00
8	97	0.95	4	0.97	0.00	0.99
8	98	0.95	38	0.97	0.00	0.99
8	99	0.96	41	0.98	0.00	0.99
8	100	0.96	27	0.98	0.00	0.99

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	101	0.96	13	0.98	0.00	1.00
8	102	0.96	30	0.98	0.00	1.00
8	103	0.96	44	0.98	0.00	0.99
8	104	0.95	22	0.97	0.01	0.99
8	105	0.95	28	0.98	0.00	0.99
8	106	0.97	27	0.98	0.00	1.00
8	107	0.97	32	0.98	0.00	1.00
8	108	0.97	35	0.98	0.00	1.00
8	109	0.96	13	0.98	0.00	1.00
8	110	0.97	10	0.98	0.00	1.00
8	111	0.97	35	0.99	0.00	1.00
8	112	0.97	31	0.99	0.00	1.00
8	113	0.97	6	0.99	0.00	1.00
8	114	0.97	15	0.97	0.02	1.00
8	115	0.98	12	0.99	0.00	1.00
8	116	0.97	30	0.98	0.00	1.00
8	117	0.97	10	0.98	0.00	1.00
8	118	0.98	13	0.99	0.00	1.00
8	119	0.98	31	0.99	0.00	1.00
8	120	0.97	28	0.98	0.00	1.00
9	2	0.90	45	0.95	0.01	0.98
9	3	0.92	3	0.96	0.00	0.97
9	4	0.68	2	0.83	0.02	0.89
9	5	0.73	12	0.83	0.08	0.92
9	6	0.75	21	0.83	0.10	0.92
9	7	0.58	2	0.78	0.03	0.83

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	8	0.50	5	0.75	0.00	0.82
9	9	0.76	49	0.79	0.19	0.87
9	10	0.47	34	0.72	0.04	0.78
9	11	0.46	32	0.70	0.06	0.76
9	12	0.39	55	0.67	0.05	0.77
9	13	0.41	89	0.68	0.05	0.71
9	14	0.47	30	0.72	0.03	0.80
9	15	0.39	8	0.69	0.00	0.72
9	16	0.37	16	0.67	0.03	0.75
9	17	0.45	17	0.70	0.04	0.77
9	18	0.36	6	0.67	0.02	0.71
9	19	0.28	26	0.64	0.00	0.70
9	20	0.35	111	0.62	0.12	0.68
9	21	0.40	39	0.66	0.08	0.75
9	22	0.49	1	0.55	0.40	0.59
9	23	0.52	97	0.65	0.22	0.71
9	24	0.39	15	0.65	0.08	0.74
9	25	0.36	24	0.66	0.04	0.74
9	26	0.43	25	0.68	0.07	0.75
9	27	0.36	52	0.66	0.03	0.74
9	28	0.38	56	0.68	0.02	0.75
9	29	0.41	42	0.67	0.06	0.74
9	30	0.54	25	0.69	0.16	0.77
9	31	0.39	51	0.67	0.04	0.75
9	32	0.45	39	0.69	0.08	0.74
9	33	0.38	3	0.69	0.00	0.72

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	34	0.43	55	0.69	0.05	0.74
9	35	0.54	35	0.70	0.14	0.78
9	36	0.48	45	0.70	0.08	0.77
9	37	0.51	45	0.71	0.08	0.77
9	38	0.50	56	0.69	0.12	0.75
9	39	0.58	113	0.65	0.27	0.70
9	40	0.56	76	0.66	0.24	0.71
9	41	0.47	40	0.71	0.06	0.77
9	42	0.57	107	0.64	0.28	0.70
9	43	0.57	129	0.65	0.27	0.70
9	44	0.60	68	0.67	0.27	0.73
9	45	0.57	82	0.70	0.17	0.74
9	46	0.60	103	0.68	0.24	0.73
9	47	0.59	54	0.69	0.21	0.74
9	48	0.44	37	0.69	0.07	0.76
9	49	0.43	9	0.71	0.00	0.73
9	50	0.59	118	0.65	0.29	0.71
9	51	0.43	23	0.70	0.03	0.76
9	52	0.58	116	0.67	0.25	0.72
9	53	0.76	4	0.54	0.69	0.55
9	54	0.59	43	0.68	0.22	0.75
9	55	0.58	112	0.67	0.24	0.72
9	56	0.61	134	0.67	0.27	0.73
9	57	0.50	37	0.69	0.11	0.76
9	58	0.58	131	0.65	0.28	0.71
9	59	0.64	48	0.67	0.31	0.74

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	60	0.33	82	0.65	0.03	0.71
9	61	0.33	3	0.66	0.00	0.72
9	62	0.32	3	0.66	0.00	0.71
9	63	0.33	61	0.65	0.04	0.71
9	64	0.40	47	0.67	0.07	0.75
9	65	0.41	59	0.66	0.09	0.70
9	66	0.33	40	0.66	0.01	0.72
9	67	0.35	25	0.66	0.03	0.74
9	68	0.31	43	0.65	0.01	0.73
9	69	0.36	55	0.66	0.04	0.72
9	70	0.35	34	0.65	0.04	0.73
9	71	0.31	27	0.66	0.00	0.74
9	72	0.36	35	0.66	0.04	0.73
9	73	0.37	59	0.65	0.07	0.71
9	74	0.43	57	0.66	0.11	0.72
9	75	0.30	67	0.64	0.01	0.70
9	76	0.31	83	0.64	0.03	0.69
9	77	0.39	28	0.67	0.05	0.73
9	78	0.30	36	0.64	0.03	0.70
9	79	0.33	109	0.63	0.06	0.66
9	80	0.29	59	0.64	0.02	0.70
9	81	0.34	49	0.64	0.07	0.70
9	82	0.40	49	0.66	0.08	0.72
9	83	0.34	34	0.65	0.05	0.71
9	84	0.27	77	0.63	0.01	0.68
9	85	0.35	72	0.64	0.07	0.68

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	86	0.36	87	0.64	0.08	0.67
9	87	0.41	50	0.65	0.10	0.71
9	88	0.37	59	0.65	0.07	0.70
9	89	0.39	54	0.64	0.12	0.69
9	90	0.32	75	0.63	0.07	0.67
9	91	0.31	67	0.62	0.06	0.66
9	92	0.28	59	0.62	0.04	0.66
9	93	0.27	59	0.62	0.03	0.66
9	94	0.33	74	0.62	0.09	0.66
9	95	0.36	32	0.64	0.08	0.68
9	96	0.34	34	0.62	0.10	0.66
9	97	0.48	73	0.63	0.21	0.70
9	98	0.32	41	0.63	0.07	0.67
9	99	0.45	36	0.63	0.18	0.69
9	100	0.28	71	0.62	0.04	0.67
9	101	0.35	77	0.62	0.11	0.67
9	102	0.37	33	0.62	0.13	0.68
9	103	0.38	43	0.63	0.13	0.67
9	104	0.31	64	0.62	0.07	0.68
9	105	0.33	59	0.63	0.07	0.68
9	106	0.32	98	0.61	0.11	0.66
9	107	0.37	82	0.61	0.14	0.65
9	108	0.25	42	0.61	0.04	0.64
9	109	0.27	34	0.61	0.06	0.64
9	110	0.27	45	0.61	0.05	0.64
9	111	0.34	25	0.62	0.11	0.66

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	112	0.27	58	0.60	0.08	0.61
9	113	0.31	61	0.61	0.09	0.64
9	114	0.36	60	0.61	0.15	0.66
9	115	0.36	58	0.61	0.13	0.65
9	116	0.40	43	0.62	0.16	0.67
9	117	0.25	59	0.60	0.05	0.63
9	118	0.34	42	0.61	0.11	0.65
9	119	0.41	30	0.62	0.18	0.67
9	120	0.31	42	0.60	0.11	0.64
10	2	0.77	11	0.82	0.13	0.93
10	3	0.87	21	0.90	0.07	0.96
10	4	0.51	2	0.74	0.03	0.76
10	5	0.79	8	0.81	0.17	0.91
10	6	0.97	1	0.60	0.77	0.95
10	7	0.61	6	0.77	0.07	0.83
10	8	0.74	31	0.80	0.14	0.88
10	9	0.87	28	0.87	0.13	0.95
10	10	0.82	33	0.86	0.11	0.93
10	11	0.75	18	0.84	0.07	0.92
10	12	0.84	26	0.84	0.15	0.92
10	13	0.74	31	0.82	0.10	0.91
10	14	0.78	30	0.87	0.04	0.94
10	15	0.75	46	0.85	0.06	0.91
10	16	0.87	40	0.89	0.08	0.96
10	17	0.86	21	0.90	0.06	0.95
10	18	0.72	15	0.85	0.01	0.93

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	19	0.86	23	0.90	0.07	0.96
10	20	0.76	31	0.83	0.11	0.90
10	21	0.73	5	0.86	0.01	0.94
10	22	0.73	4	0.83	0.07	0.91
10	23	0.63	3	0.82	0.00	0.94
10	24	0.58	6	0.79	0.00	0.86
10	25	0.50	66	0.72	0.06	0.79
10	26	0.53	57	0.73	0.06	0.80
10	27	0.52	52	0.73	0.06	0.80
10	28	0.59	28	0.73	0.13	0.81
10	29	0.51	80	0.69	0.13	0.75
10	30	0.56	28	0.72	0.12	0.78
10	31	0.47	62	0.70	0.08	0.77
10	32	0.45	63	0.69	0.07	0.77
10	33	0.46	53	0.69	0.08	0.77
10	34	0.45	26	0.70	0.06	0.76
10	35	0.47	53	0.68	0.11	0.75
10	36	0.61	36	0.71	0.20	0.78
10	37	0.46	41	0.69	0.08	0.75
10	38	0.52	59	0.68	0.15	0.76
10	39	0.53	47	0.68	0.17	0.76
10	40	0.47	47	0.68	0.12	0.74
10	41	0.43	20	0.67	0.09	0.72
10	42	0.50	35	0.68	0.14	0.74
10	43	0.49	48	0.66	0.18	0.71
10	44	0.54	38	0.66	0.21	0.73

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	45	0.72	39	0.68	0.37	0.75
10	46	0.96	5	0.69	0.58	0.76
10	47	0.91	8	0.71	0.48	0.81
10	48	0.91	11	0.79	0.34	0.87
10	49	0.87	9	0.78	0.30	0.86
10	50	0.89	11	0.83	0.23	0.91
10	51	0.88	22	0.85	0.19	0.93
10	52	0.88	30	0.84	0.20	0.92
10	53	0.86	18	0.86	0.14	0.93
10	54	0.87	61	0.88	0.11	0.94
10	55	0.89	17	0.91	0.08	0.96
10	56	0.88	23	0.90	0.08	0.96
10	57	0.90	51	0.92	0.06	0.97
10	58	0.89	18	0.93	0.04	0.97
10	59	0.89	22	0.92	0.04	0.98
10	60	0.91	12	0.93	0.04	0.98
10	61	0.93	18	0.95	0.02	0.99
10	62	0.94	30	0.96	0.02	0.99
10	63	0.94	27	0.96	0.02	0.99
10	64	0.93	14	0.96	0.01	0.99
10	65	0.93	35	0.96	0.02	0.99
10	66	0.95	24	0.97	0.02	0.99
10	67	0.95	6	0.97	0.01	0.99
10	68	0.95	39	0.97	0.01	0.99
10	69	0.95	37	0.97	0.01	0.99
10	70	0.95	19	0.97	0.01	0.99

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	71	0.94	30	0.97	0.01	0.99
10	72	0.95	41	0.97	0.01	0.99
10	73	0.94	47	0.96	0.01	0.99
10	74	0.93	36	0.96	0.01	0.99
10	75	0.93	8	0.96	0.02	0.99
10	76	0.94	11	0.97	0.01	0.99
10	77	0.94	27	0.97	0.00	0.99
10	78	0.95	23	0.97	0.01	0.99
10	79	0.94	27	0.96	0.01	0.99
10	80	0.93	8	0.95	0.03	0.99
10	81	0.95	3	0.96	0.03	0.99
10	82	0.94	24	0.96	0.02	0.99
10	83	0.94	27	0.96	0.01	0.99
10	84	0.94	20	0.96	0.02	0.99
10	85	0.95	22	0.97	0.01	0.99
10	86	0.94	5	0.96	0.02	0.99
10	87	0.95	7	0.96	0.02	0.99
10	88	0.95	6	0.96	0.02	0.99
10	89	0.96	5	0.97	0.02	0.99
10	90	0.96	4	0.97	0.01	0.99
10	91	0.95	3	0.97	0.01	0.99
10	92	0.95	38	0.97	0.01	0.99
10	93	0.94	5	0.96	0.01	0.99
10	94	0.95	4	0.97	0.02	1.00
10	95	0.95	5	0.97	0.01	0.99
10	96	0.94	11	0.96	0.02	0.99

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	97	0.95	4	0.97	0.01	0.99
10	98	0.95	7	0.97	0.02	0.99
10	99	0.95	3	0.97	0.02	0.99
10	100	0.95	3	0.97	0.02	0.99
10	101	0.95	5	0.97	0.02	0.99
10	102	0.96	24	0.97	0.01	0.99
10	103	0.95	5	0.96	0.02	0.99
10	104	0.95	6	0.96	0.02	0.99
10	105	0.95	33	0.97	0.01	0.99
10	106	0.95	12	0.96	0.02	0.99
10	107	0.96	13	0.97	0.01	1.00
10	108	0.95	16	0.97	0.01	0.99
10	109	0.95	13	0.97	0.02	0.99
10	110	0.96	11	0.97	0.02	1.00
10	111	0.96	48	0.98	0.00	1.00
10	112	0.96	13	0.97	0.02	1.00
10	113	0.96	3	0.98	0.01	1.00
10	114	0.96	12	0.98	0.01	1.00
10	115	0.96	8	0.97	0.01	1.00
10	116	0.97	12	0.98	0.01	1.00
10	117	0.97	16	0.98	0.01	1.00
10	118	0.96	8	0.98	0.01	1.00
10	119	0.97	35	0.98	0.00	1.00
10	120	0.97	9	0.98	0.01	1.00
11	2	0.82	26	0.90	0.03	0.99
11	3	0.76	6	0.87	0.03	0.95

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	4	0.84	32	0.89	0.05	0.96
11	5	0.86	18	0.89	0.07	0.93
11	6	0.82	12	0.89	0.04	0.92
11	7	0.79	18	0.82	0.15	0.90
11	8	0.74	48	0.78	0.19	0.85
11	9	0.98	95	0.52	0.95	0.60
11	10	0.73	13	0.80	0.13	0.88
11	11	0.67	29	0.79	0.09	0.88
11	12	0.67	13	0.79	0.09	0.85
11	13	0.52	6	0.72	0.08	0.78
11	14	0.53	19	0.69	0.16	0.77
11	15	0.69	38	0.69	0.30	0.78
11	16	0.54	2	0.65	0.24	0.69
11	17	0.48	10	0.64	0.21	0.69
11	18	0.20	7	0.59	0.01	0.66
11	19	0.59	47	0.59	0.42	0.61
11	20	0.58	29	0.59	0.40	0.62
11	21	0.56	14	0.55	0.47	0.56
11	22	0.36	13	0.58	0.19	0.63
11	23	0.62	55	0.63	0.36	0.67
11	24	0.48	3	0.58	0.31	0.63
11	25	0.58	41	0.58	0.43	0.61
11	26	0.59	22	0.65	0.29	0.71
11	27	0.69	40	0.68	0.34	0.74
11	28	0.70	12	0.53	0.65	0.53
11	29	0.62	16	0.66	0.30	0.72

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	30	0.88	93	0.57	0.75	0.58
11	31	0.63	43	0.64	0.35	0.69
11	32	0.53	58	0.59	0.34	0.64
11	33	0.62	33	0.63	0.36	0.68
11	34	0.67	42	0.67	0.34	0.73
11	35	0.70	70	0.66	0.39	0.71
11	36	0.63	54	0.64	0.34	0.71
11	37	0.67	52	0.66	0.34	0.74
11	38	0.70	115	0.65	0.41	0.71
11	39	0.65	51	0.68	0.28	0.76
11	40	0.65	57	0.67	0.30	0.74
11	41	0.64	62	0.68	0.28	0.75
11	42	0.63	61	0.65	0.34	0.70
11	43	0.67	45	0.68	0.30	0.77
11	44	0.62	35	0.65	0.33	0.70
11	45	0.64	52	0.66	0.32	0.74
11	46	0.67	29	0.70	0.27	0.77
11	47	0.63	66	0.69	0.26	0.74
11	48	0.67	26	0.70	0.27	0.78
11	49	0.59	48	0.70	0.19	0.76
11	50	0.61	79	0.68	0.25	0.74
11	51	0.60	69	0.68	0.23	0.74
11	52	0.66	137	0.62	0.42	0.68
11	53	0.57	25	0.68	0.21	0.74
11	54	0.64	52	0.66	0.32	0.71
11	55	0.60	44	0.71	0.19	0.77

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	56	0.63	43	0.66	0.31	0.73
11	57	0.60	41	0.70	0.21	0.77
11	58	0.60	40	0.70	0.19	0.78
11	59	0.60	29	0.70	0.19	0.78
11	60	0.54	30	0.69	0.17	0.75
11	61	0.59	56	0.70	0.19	0.77
11	62	0.64	124	0.63	0.37	0.69
11	63	0.56	31	0.69	0.19	0.75
11	64	0.59	64	0.68	0.22	0.75
11	65	0.55	79	0.66	0.24	0.72
11	66	0.59	59	0.69	0.21	0.76
11	67	0.56	41	0.68	0.19	0.75
11	68	0.64	67	0.67	0.29	0.74
11	69	0.58	95	0.68	0.23	0.73
11	70	0.56	48	0.68	0.20	0.75
11	71	0.58	85	0.68	0.22	0.75
11	72	0.57	68	0.65	0.26	0.71
11	73	0.63	31	0.66	0.30	0.72
11	74	0.58	131	0.65	0.28	0.71
11	75	0.59	65	0.67	0.24	0.75
11	76	0.56	28	0.70	0.16	0.77
11	77	0.57	69	0.68	0.20	0.75
11	78	0.57	13	0.72	0.13	0.78
11	79	0.58	75	0.68	0.23	0.75
11	80	0.57	67	0.68	0.20	0.75
11	81	0.59	86	0.67	0.25	0.73

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	82	0.59	27	0.70	0.19	0.77
11	83	0.51	119	0.64	0.22	0.69
11	84	0.56	106	0.65	0.26	0.70
11	85	0.54	39	0.69	0.17	0.75
11	86	0.58	64	0.69	0.19	0.77
11	87	0.56	63	0.69	0.19	0.75
11	88	0.55	36	0.68	0.19	0.75
11	89	0.56	21	0.72	0.13	0.78
11	90	0.57	117	0.66	0.25	0.72
11	91	0.58	54	0.69	0.19	0.76
11	92	0.53	33	0.68	0.18	0.73
11	93	0.63	20	0.68	0.28	0.75
11	94	0.57	42	0.68	0.20	0.74
11	95	0.56	68	0.68	0.21	0.74
11	96	0.56	1	0.74	0.08	0.78
11	97	0.58	12	0.72	0.13	0.78
11	98	0.55	24	0.69	0.16	0.76
11	99	0.56	1	0.73	0.10	0.79
11	100	0.56	35	0.69	0.18	0.76
11	101	0.55	29	0.69	0.17	0.75
11	102	0.64	44	0.68	0.28	0.75
11	103	0.55	70	0.68	0.18	0.74
11	104	0.57	46	0.70	0.16	0.76
11	105	0.58	9	0.73	0.11	0.80
11	106	0.57	80	0.67	0.23	0.74
11	107	0.56	35	0.70	0.17	0.77

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	108	0.56	15	0.73	0.10	0.79
11	109	0.57	33	0.70	0.17	0.76
11	110	0.57	1	0.73	0.11	0.79
11	111	0.57	22	0.71	0.16	0.78
11	112	0.56	23	0.69	0.18	0.76
11	113	0.56	14	0.72	0.11	0.77
11	114	0.55	24	0.69	0.18	0.76
11	115	0.53	1	0.74	0.06	0.80
11	116	0.58	57	0.69	0.21	0.76
11	117	0.56	1	0.73	0.11	0.78
11	118	0.57	9	0.72	0.13	0.78
11	119	0.56	15	0.71	0.13	0.78
11	120	0.55	27	0.69	0.16	0.76
12	2	0.79	7	0.82	0.16	0.91
12	3	0.64	67	0.72	0.20	0.80
12	4	0.74	103	0.76	0.23	0.83
12	5	0.76	28	0.83	0.11	0.91
12	6	0.73	38	0.81	0.12	0.87
12	7	0.73	27	0.79	0.15	0.89
12	8	0.69	13	0.74	0.20	0.83
12	9	0.71	1	0.76	0.19	0.82
12	10	0.64	5	0.74	0.17	0.78
12	11	0.71	50	0.79	0.12	0.86
12	12	0.50	13	0.70	0.09	0.76
12	13	0.65	45	0.74	0.16	0.81
12	14	0.49	41	0.69	0.10	0.76

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	15	0.58	28	0.72	0.13	0.79
12	16	0.56	5	0.71	0.13	0.78
12	17	0.52	20	0.73	0.06	0.80
12	18	0.60	31	0.73	0.13	0.81
12	19	0.62	24	0.73	0.16	0.82
12	20	0.45	17	0.72	0.01	0.77
12	21	0.65	44	0.71	0.23	0.78
12	22	0.63	41	0.63	0.37	0.67
12	23	0.58	48	0.67	0.25	0.72
12	24	0.61	27	0.73	0.15	0.81
12	25	0.62	38	0.71	0.19	0.79
12	26	0.63	60	0.72	0.18	0.81
12	27	0.60	32	0.73	0.15	0.81
12	28	0.63	29	0.66	0.30	0.72
12	29	0.64	32	0.68	0.28	0.75
12	30	0.67	2	0.52	0.64	0.52
12	31	0.48	11	0.74	0.00	0.89
12	32	0.49	48	0.72	0.06	0.78
12	33	0.66	7	0.83	0.00	0.91
12	34	0.54	7	0.77	0.00	0.92
12	35	0.65	17	0.74	0.18	0.81
12	36	0.68	5	0.84	0.00	0.93
12	37	0.59	8	0.80	0.00	0.94
12	38	0.59	13	0.79	0.00	0.94
12	39	0.60	2	0.80	0.00	0.93
12	40	0.66	2	0.83	0.00	0.92

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	41	0.62	13	0.81	0.00	0.95
12	42	0.70	5	0.85	0.00	0.95
12	43	0.64	2	0.82	0.00	0.95
12	44	0.69	2	0.84	0.00	0.95
12	45	0.76	6	0.88	0.00	0.95
12	46	0.81	6	0.90	0.00	0.96
12	47	0.74	6	0.87	0.00	0.96
12	48	0.75	7	0.88	0.00	0.96
12	49	0.71	4	0.85	0.00	0.95
12	50	0.82	12	0.91	0.00	0.97
12	51	0.82	4	0.91	0.00	0.96
12	52	0.81	9	0.91	0.00	0.97
12	53	0.83	5	0.92	0.00	0.97
12	54	0.84	7	0.92	0.00	0.98
12	55	0.84	6	0.92	0.00	0.97
12	56	0.84	2	0.92	0.00	0.96
12	57	0.84	4	0.92	0.00	0.97
12	58	0.85	3	0.92	0.00	0.97
12	59	0.84	3	0.92	0.00	0.97
12	60	0.84	3	0.92	0.00	0.97
12	61	0.85	1	0.93	0.00	0.98
12	62	0.86	8	0.93	0.00	0.98
12	63	0.86	1	0.93	0.00	0.98
12	64	0.86	5	0.93	0.00	0.98
12	65	0.86	9	0.93	0.00	0.98
12	66	0.86	3	0.93	0.00	0.98

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	67	0.86	3	0.93	0.00	0.97
12	68	0.87	6	0.94	0.00	0.98
12	69	0.87	6	0.93	0.00	0.98
12	70	0.86	1	0.93	0.00	0.99
12	71	0.88	1	0.94	0.00	0.99
12	72	0.88	6	0.94	0.00	0.99
12	73	0.88	10	0.94	0.00	0.99
12	74	0.89	1	0.94	0.00	0.99
12	75	0.88	4	0.94	0.00	0.99
12	76	0.90	3	0.95	0.00	0.98
12	77	0.90	5	0.95	0.00	0.98
12	78	0.91	6	0.95	0.00	0.99
12	79	0.90	6	0.95	0.00	0.99
12	80	0.89	5	0.95	0.00	0.99
12	81	0.92	4	0.96	0.00	0.99
12	82	0.89	2	0.95	0.00	0.98
12	83	0.90	1	0.95	0.00	0.99
12	84	0.90	10	0.95	0.00	0.99
12	85	0.92	9	0.96	0.00	0.99
12	86	0.91	8	0.95	0.00	0.99
12	87	0.92	7	0.96	0.00	0.99
12	88	0.92	9	0.96	0.00	0.99
12	89	0.92	4	0.96	0.00	0.99
12	90	0.91	10	0.96	0.00	0.99
12	91	0.92	8	0.96	0.00	1.00
12	92	0.90	3	0.95	0.00	0.99

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	93	0.90	3	0.95	0.00	0.99
12	94	0.92	1	0.96	0.00	0.99
12	95	0.92	5	0.96	0.00	0.99
12	96	0.92	7	0.96	0.00	0.99
12	97	0.94	6	0.97	0.00	0.99
12	98	0.92	1	0.96	0.00	0.99
12	99	0.92	7	0.96	0.00	0.99
12	100	0.90	6	0.95	0.00	0.99
12	101	0.89	1	0.95	0.00	0.99
12	102	0.92	6	0.96	0.00	0.99
12	103	0.91	5	0.96	0.00	0.99
12	104	0.92	4	0.96	0.00	0.99
12	105	0.92	9	0.96	0.00	0.99
12	106	0.90	3	0.95	0.00	0.99
12	107	0.93	1	0.97	0.00	1.00
12	108	0.95	7	0.97	0.00	1.00
12	109	0.92	9	0.96	0.00	1.00
12	110	0.95	5	0.97	0.00	1.00
12	111	0.95	1	0.98	0.00	1.00
12	112	0.97	1	0.98	0.00	1.00
12	113	0.96	1	0.98	0.00	1.00
12	114	0.97	1	0.99	0.00	1.00
12	115	0.98	9	0.99	0.00	1.00
12	116	0.97	2	0.99	0.00	1.00
12	117	0.97	5	0.99	0.00	1.00
12	118	0.98	6	0.99	0.00	1.00

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	119	0.99	1	0.99	0.00	1.00
12	120	0.99	1	0.99	0.00	1.00
13	2	0.59	84	0.61	0.44	0.65
13	3	0.88	66	0.61	0.66	0.70
13	4	0.63	52	0.58	0.46	0.64
13	5	0.70	8	0.52	0.73	0.97
13	6	0.86	3	0.50	0.87	0.69
13	7	0.51	6	0.49	0.53	0.54
13	8	0.62	3	0.50	0.63	0.75
13	9	0.69	141	0.51	0.68	0.50
13	10	0.75	1	0.61	0.53	0.67
13	11	0.78	3	0.74	0.29	0.79
13	12	0.70	1	0.67	0.37	0.73
13	13	0.71	17	0.70	0.32	0.76
13	14	0.78	29	0.78	0.21	0.86
13	15	0.86	1	0.52	0.83	0.51
13	16	0.75	15	0.78	0.19	0.86
13	17	0.76	24	0.80	0.17	0.87
13	18	0.79	32	0.79	0.20	0.87
13	19	0.71	26	0.73	0.24	0.82
13	20	0.72	56	0.73	0.26	0.82
13	21	0.76	27	0.77	0.22	0.85
13	22	0.75	59	0.75	0.24	0.82
13	23	0.72	55	0.74	0.24	0.81
13	24	0.71	14	0.74	0.24	0.80
13	25	0.75	45	0.77	0.22	0.84

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	26	0.72	26	0.76	0.20	0.82
13	27	0.74	51	0.76	0.22	0.83
13	28	0.73	20	0.78	0.17	0.85
13	29	0.72	37	0.74	0.24	0.81
13	30	0.71	45	0.73	0.26	0.79
13	31	0.70	13	0.76	0.18	0.83
13	32	0.70	7	0.78	0.14	0.84
13	33	0.75	32	0.80	0.15	0.87
13	34	0.72	40	0.72	0.27	0.79
13	35	0.74	17	0.78	0.19	0.84
13	36	0.73	30	0.78	0.16	0.85
13	37	0.73	29	0.79	0.16	0.84
13	38	0.75	58	0.78	0.19	0.84
13	39	0.71	18	0.77	0.16	0.85
13	40	0.74	32	0.79	0.17	0.86
13	41	0.74	55	0.78	0.18	0.84
13	42	0.73	54	0.77	0.18	0.84
13	43	0.75	10	0.80	0.15	0.86
13	44	0.70	19	0.78	0.14	0.83
13	45	0.82	2	0.54	0.73	0.59
13	46	0.72	17	0.79	0.14	0.86
13	47	0.72	14	0.79	0.15	0.85
13	48	0.71	27	0.78	0.16	0.84
13	49	0.71	16	0.79	0.14	0.84
13	50	0.71	11	0.79	0.13	0.85
13	51	0.70	51	0.73	0.24	0.80

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	52	0.68	27	0.76	0.17	0.83
13	53	0.71	18	0.78	0.16	0.84
13	54	0.72	37	0.76	0.21	0.82
13	55	0.68	7	0.78	0.12	0.84
13	56	0.68	28	0.76	0.17	0.83
13	57	0.76	26	0.79	0.18	0.86
13	58	0.72	19	0.79	0.13	0.86
13	59	0.73	17	0.80	0.13	0.86
13	60	0.69	22	0.78	0.12	0.85
13	61	0.70	12	0.78	0.15	0.85
13	62	0.71	14	0.79	0.13	0.86
13	63	0.68	5	0.80	0.08	0.85
13	64	0.69	38	0.76	0.17	0.83
13	65	0.69	52	0.78	0.13	0.84
13	66	0.69	47	0.77	0.15	0.84
13	67	0.63	35	0.78	0.08	0.84
13	68	0.56	3	0.77	0.02	0.86
13	69	0.69	13	0.80	0.09	0.87
13	70	0.71	71	0.75	0.20	0.83
13	71	0.55	2	0.77	0.01	0.86
13	72	0.57	77	0.75	0.07	0.80
13	73	0.55	88	0.75	0.05	0.79
13	74	0.62	54	0.78	0.06	0.83
13	75	0.55	2	0.77	0.01	0.86
13	76	0.52	2	0.76	0.00	0.86
13	77	0.52	1	0.76	0.00	0.81

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	78	0.58	2	0.79	0.01	0.87
13	79	0.53	2	0.76	0.01	0.86
13	80	0.62	2	0.80	0.03	0.89
13	81	0.52	2	0.76	0.01	0.86
13	82	0.53	2	0.76	0.01	0.86
13	83	0.57	2	0.77	0.02	0.87
13	84	0.55	2	0.77	0.01	0.87
13	85	0.57	2	0.78	0.01	0.87
13	86	0.84	1	0.64	0.56	0.75
13	87	0.66	2	0.80	0.06	0.88
13	88	0.57	2	0.78	0.01	0.87
13	89	0.58	2	0.78	0.02	0.87
13	90	0.55	2	0.77	0.01	0.86
13	91	0.59	2	0.78	0.03	0.87
13	92	0.59	2	0.79	0.01	0.86
13	93	0.55	2	0.77	0.01	0.86
13	94	0.58	2	0.78	0.02	0.88
13	95	0.59	2	0.79	0.01	0.87
13	96	0.60	2	0.79	0.02	0.87
13	97	0.62	2	0.80	0.03	0.88
13	98	0.53	2	0.76	0.01	0.86
13	99	0.58	2	0.78	0.02	0.88
13	100	0.61	2	0.79	0.04	0.87
13	101	0.62	2	0.80	0.03	0.87
13	102	0.60	2	0.79	0.01	0.87
13	103	0.58	2	0.78	0.02	0.87

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	104	0.58	2	0.79	0.00	0.88
13	105	0.58	2	0.79	0.01	0.88
13	106	0.60	2	0.79	0.02	0.86
13	107	0.72	60	0.79	0.14	0.86
13	108	0.65	2	0.81	0.03	0.87
13	109	0.64	2	0.80	0.03	0.88
13	110	0.65	4	0.79	0.07	0.88
13	111	0.69	29	0.81	0.08	0.87
13	112	0.75	25	0.82	0.11	0.89
13	113	0.74	9	0.82	0.10	0.88
13	114	0.73	27	0.81	0.11	0.87
13	115	0.85	1	0.60	0.66	0.72
13	116	0.72	69	0.79	0.14	0.86
13	117	0.65	3	0.81	0.04	0.88
13	118	0.73	38	0.80	0.13	0.87
13	119	0.73	47	0.81	0.11	0.87
13	120	0.84	1	0.63	0.58	0.74
14	2	0.62	13	0.70	0.23	0.75
14	3	0.57	22	0.54	0.49	0.55
14	4	0.76	1	0.60	0.57	0.62
14	5	0.91	3	0.51	0.97	0.99
14	6	0.63	11	0.47	0.68	0.46
14	7	0.67	10	0.66	0.35	0.70
14	8	0.52	1	0.48	0.56	0.46
14	9	0.62	20	0.62	0.38	0.67
14	10	0.82	1	0.62	0.57	0.67

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	11	0.75	15	0.75	0.25	0.84
14	12	0.80	16	0.78	0.25	0.87
14	13	0.81	42	0.81	0.20	0.88
14	14	0.82	18	0.82	0.18	0.90
14	15	0.83	44	0.84	0.15	0.91
14	16	0.85	30	0.86	0.13	0.93
14	17	0.87	26	0.87	0.13	0.94
14	18	0.81	15	0.86	0.09	0.92
14	19	0.84	23	0.87	0.11	0.93
14	20	0.79	40	0.85	0.09	0.92
14	21	0.83	38	0.83	0.17	0.91
14	22	0.78	19	0.80	0.18	0.86
14	23	0.78	10	0.83	0.12	0.89
14	24	0.78	11	0.81	0.15	0.88
14	25	0.78	24	0.81	0.16	0.88
14	26	0.79	25	0.81	0.16	0.89
14	27	0.80	22	0.83	0.14	0.90
14	28	0.78	37	0.79	0.20	0.85
14	29	0.80	11	0.84	0.12	0.90
14	30	0.78	10	0.83	0.12	0.89
14	31	0.80	7	0.84	0.12	0.89
14	32	0.80	38	0.83	0.14	0.90
14	33	0.84	32	0.86	0.11	0.92
14	34	0.80	33	0.85	0.09	0.91
14	35	0.81	34	0.82	0.16	0.89
14	36	0.79	29	0.84	0.11	0.90

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	37	0.79	44	0.84	0.11	0.90
14	38	0.82	23	0.84	0.13	0.90
14	39	0.78	8	0.84	0.10	0.90
14	40	0.80	23	0.85	0.11	0.91
14	41	0.82	24	0.86	0.11	0.92
14	42	0.80	17	0.84	0.12	0.91
14	43	0.82	22	0.85	0.11	0.91
14	44	0.82	27	0.84	0.14	0.91
14	45	0.78	14	0.83	0.11	0.91
14	46	0.80	18	0.84	0.12	0.90
14	47	0.78	30	0.83	0.11	0.89
14	48	0.79	11	0.86	0.07	0.91
14	49	0.83	10	0.88	0.08	0.92
14	50	0.80	16	0.84	0.12	0.91
14	51	0.80	8	0.85	0.10	0.91
14	52	0.77	11	0.85	0.08	0.90
14	53	0.79	11	0.85	0.08	0.91
14	54	0.77	21	0.80	0.16	0.88
14	55	0.77	21	0.83	0.11	0.89
14	56	0.76	5	0.83	0.11	0.89
14	57	0.80	8	0.86	0.08	0.92
14	58	0.80	4	0.86	0.07	0.92
14	59	0.79	12	0.84	0.11	0.90
14	60	0.83	6	0.87	0.08	0.92
14	61	0.81	12	0.86	0.09	0.92
14	62	0.80	10	0.85	0.10	0.91

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	63	0.80	3	0.85	0.09	0.91
14	64	0.79	4	0.85	0.09	0.91
14	65	0.78	4	0.85	0.08	0.91
14	66	0.78	16	0.83	0.12	0.89
14	67	0.81	5	0.86	0.09	0.92
14	68	0.79	14	0.83	0.12	0.90
14	69	0.80	7	0.86	0.09	0.91
14	70	0.80	21	0.86	0.09	0.91
14	71	0.77	5	0.85	0.08	0.90
14	72	0.80	4	0.86	0.07	0.92
14	73	0.78	16	0.84	0.09	0.90
14	74	0.76	30	0.82	0.11	0.88
14	75	0.80	7	0.85	0.10	0.92
14	76	0.79	3	0.86	0.07	0.92
14	77	0.77	3	0.85	0.06	0.91
14	78	0.79	3	0.86	0.06	0.92
14	79	0.79	9	0.84	0.11	0.90
14	80	0.79	7	0.86	0.08	0.92
14	81	0.80	4	0.86	0.08	0.92
14	82	0.81	4	0.86	0.09	0.92
14	83	0.81	3	0.86	0.09	0.92
14	84	0.80	11	0.86	0.09	0.92
14	85	0.80	3	0.87	0.07	0.92
14	86	0.80	6	0.86	0.07	0.92
14	87	0.77	3	0.85	0.07	0.92
14	88	0.78	4	0.85	0.08	0.92

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	89	0.79	3	0.86	0.08	0.92
14	90	0.76	2	0.85	0.06	0.92
14	91	0.77	7	0.84	0.09	0.91
14	92	0.76	5	0.85	0.06	0.91
14	93	0.79	5	0.86	0.08	0.92
14	94	0.81	13	0.86	0.09	0.92
14	95	0.80	11	0.85	0.10	0.91
14	96	0.80	10	0.85	0.10	0.92
14	97	0.80	23	0.83	0.14	0.91
14	98	0.78	11	0.84	0.10	0.91
14	99	0.80	6	0.85	0.09	0.92
14	100	0.79	8	0.85	0.10	0.92
14	101	0.80	4	0.86	0.08	0.92
14	102	0.81	6	0.87	0.08	0.93
14	103	0.82	3	0.88	0.07	0.93
14	104	0.80	11	0.86	0.09	0.92
14	105	0.80	9	0.86	0.08	0.92
14	106	0.80	4	0.86	0.08	0.92
14	107	0.81	6	0.86	0.09	0.92
14	108	0.81	28	0.85	0.10	0.92
14	109	0.81	28	0.86	0.10	0.92
14	110	0.83	2	0.87	0.09	0.93
14	111	0.84	1	0.64	0.57	0.74
14	112	0.83	19	0.87	0.09	0.94
14	113	0.83	5	0.87	0.10	0.93
14	114	0.81	18	0.86	0.10	0.92

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	115	0.83	7	0.87	0.10	0.93
14	116	0.82	16	0.87	0.09	0.93
14	117	0.82	5	0.87	0.08	0.93
14	118	0.83	10	0.87	0.09	0.93
14	119	0.81	9	0.86	0.09	0.93
14	120	0.84	7	0.87	0.10	0.94
15	2	0.71	40	0.69	0.32	0.76
15	3	0.64	108	0.54	0.59	0.57
15	4	0.70	42	0.64	0.43	0.71
15	5	0.62	63	0.64	0.34	0.67
15	6	0.73	70	0.62	0.49	0.67
15	7	0.69	76	0.63	0.43	0.67
15	8	0.61	3	0.49	0.63	0.52
15	9	0.74	4	0.50	0.74	0.50
15	10	0.68	6	0.65	0.39	0.67
15	11	0.72	53	0.62	0.47	0.65
15	12	0.53	53	0.52	0.50	0.54
15	13	0.71	34	0.67	0.36	0.73
15	14	0.48	52	0.55	0.37	0.58
15	15	0.61	33	0.60	0.40	0.64
15	16	0.60	28	0.59	0.41	0.64
15	17	0.66	41	0.63	0.40	0.67
15	18	0.63	33	0.61	0.40	0.67
15	19	0.66	26	0.64	0.37	0.69
15	20	0.74	99	0.61	0.53	0.65
15	21	0.59	23	0.59	0.41	0.64

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	22	0.73	29	0.73	0.28	0.80
15	23	0.69	35	0.69	0.30	0.76
15	24	0.73	14	0.76	0.22	0.83
15	25	0.75	6	0.77	0.20	0.84
15	26	0.76	26	0.79	0.19	0.85
15	27	0.77	40	0.79	0.18	0.88
15	28	0.78	12	0.78	0.22	0.85
15	29	0.79	36	0.83	0.14	0.90
15	30	0.81	30	0.83	0.15	0.91
15	31	0.80	6	0.83	0.14	0.91
15	32	0.79	31	0.84	0.12	0.91
15	33	0.83	17	0.86	0.11	0.92
15	34	0.78	26	0.84	0.10	0.92
15	35	0.82	25	0.86	0.10	0.93
15	36	0.79	39	0.85	0.09	0.92
15	37	0.81	8	0.86	0.08	0.93
15	38	0.80	29	0.87	0.06	0.93
15	39	0.82	23	0.88	0.07	0.95
15	40	0.81	31	0.88	0.04	0.94
15	41	0.87	32	0.90	0.07	0.96
15	42	0.86	16	0.90	0.06	0.96
15	43	0.88	15	0.91	0.06	0.97
15	44	0.86	39	0.90	0.06	0.96
15	45	0.88	27	0.92	0.05	0.97
15	46	0.87	31	0.92	0.03	0.97
15	47	0.85	48	0.91	0.04	0.96

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	48	0.89	18	0.93	0.03	0.98
15	49	0.89	16	0.93	0.03	0.98
15	50	0.89	2	0.93	0.03	0.97
15	51	0.90	11	0.93	0.04	0.98
15	52	0.93	47	0.95	0.03	0.99
15	53	0.90	2	0.93	0.04	0.97
15	54	0.91	36	0.93	0.05	0.98
15	55	0.94	52	0.96	0.02	0.99
15	56	0.94	67	0.96	0.02	0.99
15	57	0.94	39	0.97	0.01	0.99
15	58	0.97	24	0.98	0.01	0.99
15	59	0.96	35	0.97	0.01	0.99
15	60	0.97	43	0.98	0.01	0.99
15	61	0.97	55	0.98	0.01	1.00
15	62	0.97	15	0.98	0.01	1.00
15	63	0.99	46	0.99	0.00	1.00
15	64	0.98	42	0.99	0.00	0.99
15	65	0.97	14	0.98	0.01	0.99
15	66	0.98	82	0.99	0.00	1.00
15	67	0.99	29	0.99	0.00	1.00
15	68	0.98	58	0.99	0.00	1.00
15	69	0.98	55	0.99	0.00	1.00
15	70	0.98	56	0.99	0.00	0.99
15	71	0.97	39	0.98	0.00	0.99
15	72	0.97	40	0.99	0.00	1.00
15	73	0.97	54	0.99	0.00	0.99

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	74	0.96	32	0.98	0.00	0.99
15	75	0.97	74	0.99	0.00	0.99
15	76	0.97	51	0.99	0.00	0.99
15	77	0.98	50	0.99	0.00	1.00
15	78	0.97	57	0.99	0.00	0.99
15	79	0.98	38	0.99	0.00	1.00
15	80	0.98	68	0.99	0.00	1.00
15	81	0.99	31	0.99	0.00	1.00
15	82	0.98	67	0.99	0.00	1.00
15	83	0.97	26	0.98	0.00	0.99
15	84	0.98	44	0.99	0.00	1.00
15	85	0.98	48	0.99	0.00	1.00
15	86	0.98	83	0.99	0.00	1.00
15	87	0.98	47	0.99	0.00	1.00
15	88	0.98	84	0.99	0.00	1.00
15	89	0.98	36	0.99	0.00	1.00
15	90	0.98	31	0.99	0.00	1.00
15	91	0.98	17	0.99	0.00	0.99
15	92	0.98	12	0.99	0.00	1.00
15	93	0.98	79	0.99	0.00	1.00
15	94	0.97	31	0.99	0.00	1.00
15	95	0.97	53	0.98	0.00	1.00
15	96	0.98	42	0.99	0.00	1.00
15	97	0.97	13	0.99	0.00	1.00
15	98	0.97	57	0.99	0.00	1.00
15	99	0.98	30	0.99	0.00	1.00

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Table S1 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	100	0.98	56	0.99	0.00	1.00
15	101	0.98	34	0.99	0.01	1.00
15	102	0.97	60	0.99	0.00	1.00
15	103	0.98	53	0.99	0.00	1.00
15	104	0.98	29	0.99	0.01	1.00
15	105	0.97	37	0.99	0.00	1.00
15	106	0.98	47	0.99	0.00	1.00
15	107	0.98	60	0.99	0.00	1.00
15	108	0.98	4	0.99	0.00	1.00
15	109	0.99	44	0.99	0.00	1.00
15	110	0.99	32	0.99	0.00	1.00
15	111	0.99	42	0.99	0.00	1.00
15	112	0.99	55	0.99	0.00	1.00
15	113	0.99	39	1.00	0.00	1.00
15	114	0.99	44	1.00	0.00	1.00
15	115	0.99	45	1.00	0.00	1.00
15	116	1.00	75	1.00	0.00	1.00
15	117	0.99	55	1.00	0.00	1.00
15	118	0.99	67	1.00	0.00	1.00
15	119	1.00	65	1.00	0.00	1.00
15	120	1.00	10	1.00	0.00	1.00

Table S2: Fault & Time-specific Model Performances with respect to the Two-step Rolling Time Horizon Approach. The alternative models can be provided upon request.

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	2-3	0.94	47	0.86	0.22	0.93
1	3-4	0.80	8	0.73	0.34	0.78
1	4-5	0.77	10	0.72	0.34	0.78
1	5-6	0.77	13	0.71	0.35	0.78
1	6-7	0.73	27	0.69	0.34	0.75
1	7-8	0.70	29	0.65	0.40	0.72
1	8-9	0.70	21	0.69	0.33	0.75
1	9-10	0.66	8	0.49	0.69	0.50
1	10-11	0.70	9	0.63	0.45	0.66
1	11-12	0.65	14	0.62	0.42	0.67
1	12-13	0.72	1	0.55	0.61	0.56
1	13-14	0.62	53	0.57	0.49	0.58
1	14-15	0.62	3	0.54	0.55	0.56
1	15-16	0.76	1	0.57	0.63	0.57
1	16-17	0.62	250	0.52	0.59	0.53
1	17-18	0.61	53	0.61	0.38	0.67
1	18-19	0.67	2	0.53	0.61	0.55
1	19-20	0.64	8	0.59	0.46	0.63
1	20-21	0.60	47	0.60	0.39	0.64
1	21-22	0.66	133	0.66	0.33	0.73
1	22-23	0.65	215	0.64	0.36	0.71
1	23-24	0.67	39	0.72	0.24	0.79
1	24-25	0.70	65	0.72	0.25	0.81
1	25-26	0.72	45	0.74	0.24	0.83

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	26-27	0.68	47	0.74	0.19	0.83
1	27-28	0.66	42	0.74	0.19	0.83
1	28-29	0.68	74	0.75	0.17	0.82
1	29-30	0.68	61	0.76	0.17	0.82
1	30-31	0.67	71	0.76	0.16	0.83
1	31-32	0.63	45	0.73	0.17	0.81
1	32-33	0.63	41	0.74	0.15	0.81
1	33-34	0.65	82	0.74	0.17	0.82
1	34-35	0.64	3	0.82	0.00	0.93
1	35-36	0.64	3	0.82	0.00	0.93
1	36-37	0.64	7	0.82	0.00	0.95
1	37-38	0.65	5	0.82	0.00	0.95
1	38-39	0.65	2	0.83	0.00	0.93
1	39-40	0.66	7	0.83	0.00	0.95
1	40-41	0.65	5	0.83	0.00	0.94
1	41-42	0.64	5	0.82	0.00	0.94
1	42-43	0.66	2	0.83	0.00	0.94
1	43-44	0.66	2	0.83	0.00	0.93
1	44-45	0.66	2	0.83	0.00	0.92
1	45-46	0.67	2	0.84	0.00	0.94
1	46-47	0.67	4	0.83	0.00	0.95
1	47-48	0.67	6	0.83	0.00	0.95
1	48-49	0.67	4	0.84	0.00	0.93
1	49-50	0.69	4	0.84	0.00	0.94
1	50-51	0.69	4	0.84	0.00	0.94
1	51-52	0.68	5	0.84	0.00	0.94

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	52-53	0.71	4	0.85	0.00	0.93
1	53-54	0.70	9	0.85	0.00	0.95
1	54-55	0.70	5	0.85	0.00	0.94
1	55-56	0.68	9	0.84	0.00	0.94
1	56-57	0.71	5	0.85	0.00	0.93
1	57-58	0.70	7	0.85	0.00	0.94
1	58-59	0.69	9	0.84	0.00	0.94
1	59-60	0.69	10	0.84	0.00	0.94
1	60-61	0.68	8	0.84	0.00	0.93
1	61-62	0.71	3	0.85	0.01	0.92
1	62-63	0.70	9	0.85	0.00	0.93
1	63-64	0.67	25	0.83	0.00	0.94
1	64-65	0.68	8	0.83	0.01	0.91
1	65-66	0.68	22	0.84	0.00	0.94
1	66-67	0.68	16	0.84	0.00	0.94
1	67-68	0.67	9	0.83	0.01	0.91
1	68-69	0.68	30	0.84	0.00	0.94
1	69-70	0.68	6	0.84	0.00	0.90
1	70-71	0.69	17	0.84	0.00	0.93
1	71-72	0.69	22	0.85	0.00	0.94
1	72-73	0.69	40	0.84	0.00	0.94
1	73-74	0.69	29	0.84	0.00	0.93
1	74-75	0.69	27	0.84	0.00	0.93
1	75-76	0.71	39	0.85	0.00	0.94
1	76-77	0.69	38	0.84	0.00	0.93
1	77-78	0.68	35	0.84	0.00	0.93

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	78-79	0.69	36	0.85	0.00	0.93
1	79-80	0.70	34	0.85	0.00	0.93
1	80-81	0.70	36	0.85	0.00	0.93
1	81-82	0.70	37	0.85	0.00	0.92
1	82-83	0.70	35	0.85	0.00	0.93
1	83-84	0.70	36	0.85	0.00	0.93
1	84-85	0.68	33	0.84	0.00	0.92
1	85-86	0.68	26	0.84	0.00	0.92
1	86-87	0.68	29	0.84	0.00	0.92
1	87-88	0.68	40	0.84	0.00	0.91
1	88-89	0.69	33	0.84	0.01	0.91
1	89-90	0.69	30	0.84	0.00	0.94
1	90-91	0.75	32	0.88	0.00	0.96
1	91-92	0.67	40	0.84	0.00	0.95
1	92-93	0.68	32	0.84	0.00	0.96
1	93-94	0.67	40	0.84	0.00	0.93
1	94-95	0.67	37	0.84	0.00	0.94
1	95-96	0.69	40	0.84	0.00	0.92
1	96-97	0.68	41	0.84	0.00	0.93
1	97-98	0.68	19	0.84	0.00	0.94
1	98-99	0.72	128	0.81	0.10	0.88
1	99-100	0.68	25	0.84	0.00	0.94
1	100-101	0.68	32	0.84	0.00	0.94
1	101-102	0.69	32	0.84	0.00	0.94
1	102-103	0.70	18	0.85	0.00	0.95
1	103-104	0.75	87	0.83	0.09	0.89

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	104-105	0.67	22	0.84	0.00	0.95
1	105-106	0.69	24	0.84	0.00	0.95
1	106-107	0.67	67	0.84	0.00	0.94
1	107-108	0.69	11	0.84	0.00	0.96
1	108-109	0.68	43	0.84	0.00	0.94
1	109-110	0.70	13	0.85	0.00	0.96
1	110-111	0.73	127	0.83	0.07	0.90
1	111-112	0.69	13	0.85	0.00	0.97
1	112-113	0.70	14	0.85	0.00	0.97
1	113-114	0.75	107	0.82	0.12	0.89
1	114-115	0.76	90	0.84	0.09	0.90
1	115-116	0.75	87	0.84	0.07	0.90
1	116-117	0.70	10	0.85	0.00	0.96
1	117-118	0.69	17	0.84	0.00	0.96
1	118-119	0.68	60	0.84	0.00	0.93
1	119-120	0.70	2	0.84	0.02	0.90
2	2-3	0.77	25	0.48	0.81	0.64
2	3-4	0.60	208	0.49	0.65	0.47
2	4-5	0.81	9	0.51	0.99	1.00
2	5-6	0.59	11	0.63	0.33	0.72
2	6-7	0.71	27	0.69	0.33	0.75
2	7-8	0.57	117	0.57	0.44	0.60
2	8-9	0.82	38	0.52	0.79	0.53
2	9-10	0.71	33	0.68	0.35	0.73
2	10-11	0.68	26	0.64	0.39	0.69
2	11-12	0.67	2	0.50	0.67	0.48

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	12-13	0.57	128	0.50	0.56	0.48
2	13-14	0.97	30	0.50	0.97	0.84
2	14-15	0.69	44	0.65	0.38	0.70
2	15-16	0.66	50	0.66	0.34	0.70
2	16-17	0.71	50	0.68	0.36	0.73
2	17-18	0.69	55	0.67	0.34	0.74
2	18-19	0.72	66	0.70	0.31	0.77
2	19-20	0.67	71	0.69	0.28	0.77
2	20-21	0.74	47	0.75	0.24	0.83
2	21-22	0.72	76	0.75	0.23	0.82
2	22-23	0.72	59	0.74	0.25	0.83
2	23-24	0.72	55	0.76	0.21	0.84
2	24-25	0.67	99	0.75	0.17	0.82
2	25-26	0.67	97	0.77	0.14	0.85
2	26-27	0.66	98	0.77	0.12	0.85
2	27-28	0.66	100	0.76	0.13	0.85
2	28-29	0.72	50	0.77	0.19	0.85
2	29-30	0.66	76	0.77	0.11	0.86
2	30-31	0.74	84	0.77	0.20	0.86
2	31-32	0.73	54	0.78	0.18	0.87
2	32-33	0.67	76	0.79	0.09	0.87
2	33-34	0.68	51	0.79	0.10	0.87
2	34-35	0.66	62	0.78	0.10	0.86
2	35-36	0.65	41	0.79	0.06	0.87
2	36-37	0.71	47	0.75	0.21	0.84
2	37-38	0.68	60	0.79	0.11	0.86

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	38-39	0.73	46	0.77	0.18	0.85
2	39-40	0.69	85	0.75	0.18	0.83
2	40-41	0.64	43	0.77	0.09	0.85
2	41-42	0.64	48	0.78	0.09	0.85
2	42-43	0.69	54	0.78	0.14	0.84
2	43-44	0.66	63	0.78	0.09	0.86
2	44-45	0.66	6	0.81	0.03	0.86
2	45-46	0.66	4	0.81	0.03	0.86
2	46-47	0.73	43	0.78	0.17	0.86
2	47-48	0.71	53	0.77	0.17	0.85
2	48-49	0.70	42	0.79	0.12	0.86
2	49-50	0.70	38	0.80	0.10	0.87
2	50-51	0.68	11	0.83	0.01	0.89
2	51-52	0.67	40	0.81	0.06	0.88
2	52-53	0.66	17	0.83	0.01	0.89
2	53-54	0.69	51	0.78	0.12	0.86
2	54-55	0.70	60	0.78	0.14	0.86
2	55-56	0.66	9	0.83	0.00	0.91
2	56-57	0.73	42	0.79	0.15	0.86
2	57-58	0.71	14	0.85	0.00	0.92
2	58-59	0.76	1	0.87	0.01	0.94
2	59-60	0.70	2	0.85	0.00	0.94
2	60-61	0.69	1	0.85	0.00	0.94
2	61-62	0.71	2	0.85	0.00	0.95
2	62-63	0.70	2	0.85	0.00	0.95
2	63-64	0.74	18	0.87	0.00	0.94

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	64-65	0.70	2	0.85	0.00	0.96
2	65-66	0.72	2	0.86	0.00	0.96
2	66-67	0.77	13	0.88	0.00	0.95
2	67-68	0.75	18	0.87	0.00	0.96
2	68-69	0.71	2	0.86	0.00	0.97
2	69-70	0.69	2	0.85	0.00	0.97
2	70-71	0.69	2	0.85	0.00	0.97
2	71-72	0.77	17	0.88	0.00	0.95
2	72-73	0.80	1	0.90	0.01	0.97
2	73-74	0.80	2	0.90	0.00	0.98
2	74-75	0.77	21	0.89	0.00	0.96
2	75-76	0.76	21	0.88	0.00	0.97
2	76-77	0.75	22	0.87	0.00	0.97
2	77-78	0.74	22	0.87	0.00	0.96
2	78-79	0.70	2	0.85	0.00	0.98
2	79-80	0.78	17	0.89	0.00	0.96
2	80-81	0.79	12	0.89	0.00	0.96
2	81-82	0.75	20	0.87	0.00	0.97
2	82-83	0.70	2	0.85	0.00	0.98
2	83-84	0.78	20	0.89	0.00	0.97
2	84-85	0.71	2	0.85	0.00	0.98
2	85-86	0.82	22	0.91	0.00	0.97
2	86-87	0.79	22	0.89	0.00	0.97
2	87-88	0.75	16	0.87	0.00	0.96
2	88-89	0.78	16	0.89	0.00	0.96
2	89-90	0.74	19	0.87	0.00	0.96

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	90-91	0.77	23	0.88	0.00	0.97
2	91-92	0.69	1	0.85	0.00	0.98
2	92-93	0.77	18	0.89	0.00	0.96
2	93-94	0.78	20	0.89	0.00	0.97
2	94-95	0.70	2	0.85	0.00	0.98
2	95-96	0.73	13	0.87	0.00	0.96
2	96-97	0.76	21	0.88	0.00	0.97
2	97-98	0.78	16	0.89	0.00	0.97
2	98-99	0.79	20	0.89	0.00	0.98
2	99-100	0.74	22	0.87	0.00	0.97
2	100-101	0.69	2	0.85	0.00	0.99
2	101-102	0.69	2	0.85	0.00	0.98
2	102-103	0.80	1	0.90	0.00	0.97
2	103-104	0.70	2	0.85	0.00	0.98
2	104-105	0.77	12	0.88	0.01	0.96
2	105-106	0.79	18	0.90	0.00	0.97
2	106-107	0.74	22	0.87	0.00	0.97
2	107-108	0.80	2	0.90	0.00	0.98
2	108-109	0.81	2	0.90	0.00	0.99
2	109-110	0.81	16	0.90	0.00	0.97
2	110-111	0.75	22	0.87	0.00	0.97
2	111-112	0.69	2	0.85	0.00	0.99
2	112-113	0.69	2	0.84	0.00	0.99
2	113-114	0.79	22	0.90	0.00	0.97
2	114-115	0.74	22	0.87	0.00	0.97
2	115-116	0.75	21	0.87	0.00	0.97

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	116-117	0.74	22	0.87	0.00	0.97
2	117-118	0.69	2	0.85	0.00	0.98
2	118-119	0.78	13	0.89	0.00	0.96
2	119-120	0.69	1	0.85	0.00	0.98
3	2-3	1.00	2	1.00	0.00	1.00
3	3-4	0.97	34	0.98	0.00	1.00
3	4-5	1.00	4	1.00	0.00	1.00
3	5-6	1.00	36	1.00	0.00	1.00
3	6-7	0.98	45	0.99	0.00	1.00
3	7-8	0.99	41	1.00	0.00	1.00
3	8-9	0.98	7	0.99	0.00	1.00
3	9-10	0.94	10	0.97	0.00	1.00
3	10-11	0.94	51	0.97	0.01	1.00
3	11-12	0.96	58	0.97	0.01	1.00
3	12-13	0.94	29	0.97	0.00	1.00
3	13-14	0.94	43	0.97	0.00	1.00
3	14-15	0.96	37	0.98	0.01	1.00
3	15-16	0.94	10	0.97	0.00	1.00
3	16-17	0.93	64	0.96	0.01	0.99
3	17-18	0.93	38	0.97	0.00	0.99
3	18-19	0.93	8	0.97	0.00	0.99
3	19-20	0.99	8	0.99	0.00	1.00
3	20-21	0.98	4	0.99	0.00	1.00
3	21-22	0.98	7	0.99	0.00	1.00
3	22-23	0.98	9	0.99	0.00	1.00
3	23-24	0.95	26	0.98	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	24-25	0.95	9	0.97	0.00	1.00
3	25-26	0.95	28	0.97	0.00	1.00
3	26-27	0.97	3	0.98	0.00	1.00
3	27-28	0.98	12	0.99	0.00	1.00
3	28-29	0.99	13	0.99	0.01	1.00
3	29-30	0.98	15	0.99	0.00	1.00
3	30-31	0.99	1	0.99	0.01	0.99
3	31-32	1.00	11	1.00	0.01	1.00
3	32-33	1.00	2	1.00	0.01	1.00
3	33-34	0.99	12	1.00	0.00	1.00
3	34-35	1.00	4	1.00	0.00	1.00
3	35-36	0.99	19	0.99	0.00	1.00
3	36-37	0.99	18	0.99	0.00	1.00
3	37-38	0.98	17	0.99	0.00	1.00
3	38-39	0.98	27	0.99	0.00	1.00
3	39-40	0.99	2	0.99	0.00	1.00
3	40-41	0.99	1	1.00	0.00	1.00
3	41-42	0.99	2	0.99	0.00	1.00
3	42-43	0.99	2	0.99	0.00	1.00
3	43-44	0.99	27	1.00	0.00	1.00
3	44-45	0.99	2	0.99	0.00	1.00
3	45-46	0.99	14	0.99	0.00	1.00
3	46-47	0.99	3	1.00	0.00	1.00
3	47-48	0.99	16	0.99	0.00	1.00
3	48-49	0.99	2	0.99	0.00	1.00
3	49-50	0.98	2	0.99	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	50-51	0.98	5	0.99	0.00	1.00
3	51-52	0.99	2	0.99	0.00	1.00
3	52-53	0.98	2	0.99	0.00	1.00
3	53-54	0.98	2	0.99	0.00	1.00
3	54-55	0.97	2	0.98	0.00	1.00
3	55-56	0.98	18	0.99	0.00	1.00
3	56-57	0.98	2	0.99	0.00	1.00
3	57-58	0.99	2	0.99	0.00	1.00
3	58-59	0.99	22	0.99	0.00	1.00
3	59-60	0.98	2	0.99	0.00	1.00
3	60-61	0.98	1	0.99	0.00	1.00
3	61-62	0.99	2	0.99	0.00	1.00
3	62-63	0.98	2	0.99	0.00	1.00
3	63-64	0.98	2	0.99	0.00	1.00
3	64-65	0.98	2	0.99	0.00	1.00
3	65-66	0.98	1	0.99	0.00	1.00
3	66-67	0.98	2	0.99	0.00	1.00
3	67-68	0.98	2	0.99	0.00	1.00
3	68-69	0.98	1	0.99	0.00	1.00
3	69-70	0.99	2	0.99	0.00	1.00
3	70-71	0.98	2	0.99	0.00	1.00
3	71-72	0.98	19	0.99	0.00	1.00
3	72-73	0.99	1	0.99	0.00	1.00
3	73-74	0.99	2	0.99	0.00	1.00
3	74-75	0.99	15	0.99	0.00	1.00
3	75-76	0.99	2	1.00	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	76-77	0.98	2	0.99	0.00	1.00
3	77-78	0.99	21	0.99	0.00	1.00
3	78-79	0.98	17	0.99	0.00	1.00
3	79-80	0.98	2	0.99	0.00	1.00
3	80-81	0.98	33	0.99	0.00	1.00
3	81-82	0.99	18	0.99	0.00	1.00
3	82-83	0.99	2	0.99	0.00	1.00
3	83-84	0.98	2	0.99	0.00	1.00
3	84-85	0.99	19	0.99	0.00	1.00
3	85-86	0.99	2	0.99	0.00	1.00
3	86-87	0.98	2	0.99	0.00	1.00
3	87-88	0.98	2	0.99	0.00	1.00
3	88-89	0.98	2	0.99	0.00	1.00
3	89-90	0.98	2	0.99	0.00	1.00
3	90-91	0.98	20	0.99	0.00	1.00
3	91-92	0.98	2	0.99	0.00	1.00
3	92-93	0.98	2	0.99	0.00	1.00
3	93-94	0.97	2	0.99	0.00	1.00
3	94-95	0.99	2	0.99	0.00	1.00
3	95-96	0.97	2	0.99	0.00	1.00
3	96-97	0.97	2	0.99	0.00	1.00
3	97-98	0.99	17	0.99	0.00	1.00
3	98-99	0.99	2	0.99	0.00	1.00
3	99-100	0.99	2	0.99	0.00	1.00
3	100-101	0.99	2	0.99	0.00	1.00
3	101-102	0.99	2	0.99	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	102-103	0.98	2	0.99	0.00	1.00
3	103-104	0.98	2	0.99	0.00	1.00
3	104-105	0.98	2	0.99	0.00	1.00
3	105-106	0.99	25	0.99	0.00	1.00
3	106-107	0.98	2	0.99	0.00	1.00
3	107-108	0.99	2	0.99	0.00	1.00
3	108-109	0.98	2	0.99	0.00	1.00
3	109-110	0.98	2	0.99	0.00	1.00
3	110-111	0.99	2	0.99	0.00	1.00
3	111-112	0.98	2	0.99	0.00	1.00
3	112-113	0.98	2	0.99	0.00	1.00
3	113-114	0.99	2	0.99	0.00	1.00
3	114-115	0.99	2	0.99	0.00	1.00
3	115-116	0.98	2	0.99	0.00	1.00
3	116-117	0.98	2	0.99	0.00	1.00
3	117-118	0.97	2	0.99	0.00	1.00
3	118-119	0.98	2	0.99	0.00	1.00
3	119-120	0.97	2	0.99	0.00	1.00
4	2-3	0.82	48	0.83	0.17	0.91
4	3-4	0.85	74	0.83	0.19	0.90
4	4-5	0.83	26	0.83	0.16	0.92
4	5-6	0.82	38	0.81	0.20	0.90
4	6-7	0.85	65	0.86	0.13	0.93
4	7-8	0.85	45	0.87	0.12	0.94
4	8-9	0.89	67	0.91	0.07	0.97
4	9-10	0.89	66	0.90	0.10	0.96

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	10-11	0.89	71	0.92	0.05	0.98
4	11-12	0.94	75	0.95	0.04	0.99
4	12-13	0.90	94	0.92	0.05	0.97
4	13-14	0.94	71	0.96	0.02	0.99
4	14-15	0.88	52	0.93	0.01	0.98
4	15-16	0.92	103	0.94	0.03	0.99
4	16-17	0.92	110	0.96	0.01	0.99
4	17-18	0.96	70	0.98	0.00	1.00
4	18-19	0.92	76	0.96	0.00	1.00
4	19-20	0.95	103	0.97	0.01	0.99
4	20-21	0.95	45	0.97	0.00	0.99
4	21-22	0.95	66	0.97	0.01	1.00
4	22-23	0.95	52	0.97	0.01	1.00
4	23-24	0.91	67	0.96	0.00	0.99
4	24-25	0.95	55	0.97	0.01	1.00
4	25-26	0.96	53	0.98	0.00	1.00
4	26-27	0.95	47	0.97	0.00	1.00
4	27-28	0.91	38	0.95	0.00	0.99
4	28-29	0.95	58	0.97	0.00	0.99
4	29-30	0.93	38	0.97	0.00	1.00
4	30-31	0.97	61	0.98	0.01	1.00
4	31-32	0.96	56	0.98	0.00	1.00
4	32-33	0.97	33	0.98	0.00	1.00
4	33-34	0.97	31	0.98	0.00	1.00
4	34-35	0.94	47	0.97	0.00	0.99
4	35-36	0.97	20	0.98	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	36-37	0.96	21	0.98	0.00	1.00
4	37-38	0.96	32	0.98	0.00	1.00
4	38-39	0.91	56	0.96	0.00	1.00
4	39-40	0.95	73	0.97	0.00	1.00
4	40-41	0.95	28	0.98	0.00	1.00
4	41-42	0.96	29	0.98	0.00	1.00
4	42-43	0.97	47	0.99	0.00	1.00
4	43-44	0.98	25	0.99	0.00	1.00
4	44-45	0.97	26	0.98	0.00	1.00
4	45-46	0.95	37	0.98	0.00	1.00
4	46-47	0.92	41	0.96	0.00	1.00
4	47-48	0.96	30	0.98	0.00	1.00
4	48-49	0.93	42	0.96	0.00	1.00
4	49-50	0.96	25	0.98	0.00	1.00
4	50-51	0.97	25	0.99	0.00	1.00
4	51-52	0.95	44	0.97	0.00	1.00
4	52-53	0.95	34	0.97	0.00	1.00
4	53-54	0.97	32	0.99	0.00	1.00
4	54-55	0.97	25	0.98	0.00	1.00
4	55-56	0.96	24	0.98	0.00	1.00
4	56-57	0.96	27	0.98	0.00	1.00
4	57-58	0.92	24	0.96	0.00	1.00
4	58-59	0.92	27	0.96	0.00	1.00
4	59-60	0.94	31	0.97	0.00	1.00
4	60-61	0.97	29	0.99	0.00	1.00
4	61-62	0.93	25	0.97	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	62-63	0.97	25	0.98	0.00	1.00
4	63-64	0.97	24	0.98	0.00	1.00
4	64-65	0.96	24	0.98	0.00	1.00
4	65-66	0.97	24	0.98	0.00	1.00
4	66-67	0.96	25	0.98	0.00	1.00
4	67-68	0.98	25	0.99	0.00	1.00
4	68-69	0.98	26	0.99	0.00	1.00
4	69-70	0.98	27	0.99	0.00	1.00
4	70-71	0.97	24	0.99	0.00	1.00
4	71-72	0.97	25	0.99	0.00	1.00
4	72-73	0.97	25	0.99	0.00	1.00
4	73-74	0.99	25	1.00	0.00	1.00
4	74-75	0.98	25	0.99	0.00	1.00
4	75-76	0.97	26	0.98	0.00	1.00
4	76-77	0.96	26	0.98	0.00	1.00
4	77-78	0.92	25	0.96	0.00	1.00
4	78-79	0.98	27	0.99	0.00	1.00
4	79-80	0.94	59	0.97	0.00	1.00
4	80-81	0.93	29	0.96	0.00	1.00
4	81-82	0.92	53	0.96	0.00	1.00
4	82-83	0.94	90	0.96	0.02	0.99
4	83-84	0.95	48	0.97	0.00	1.00
4	84-85	0.96	25	0.98	0.00	1.00
4	85-86	0.96	24	0.98	0.00	1.00
4	86-87	0.95	42	0.98	0.00	1.00
4	87-88	0.97	25	0.99	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	88-89	0.98	25	0.99	0.00	1.00
4	89-90	0.98	24	0.99	0.00	1.00
4	90-91	0.97	23	0.99	0.00	1.00
4	91-92	0.92	41	0.96	0.00	1.00
4	92-93	0.95	41	0.97	0.00	1.00
4	93-94	0.97	23	0.98	0.00	1.00
4	94-95	0.96	31	0.98	0.00	1.00
4	95-96	0.97	24	0.99	0.00	1.00
4	96-97	0.92	76	0.96	0.00	1.00
4	97-98	0.97	30	0.98	0.00	1.00
4	98-99	0.97	26	0.99	0.00	1.00
4	99-100	0.98	29	0.99	0.00	1.00
4	100-101	0.98	25	0.99	0.00	1.00
4	101-102	0.97	25	0.99	0.00	1.00
4	102-103	0.97	25	0.99	0.00	1.00
4	103-104	0.98	24	0.99	0.00	1.00
4	104-105	0.97	24	0.98	0.00	1.00
4	105-106	0.97	24	0.99	0.00	1.00
4	106-107	0.97	24	0.99	0.00	1.00
4	107-108	0.97	49	0.98	0.00	1.00
4	108-109	0.96	34	0.98	0.00	1.00
4	109-110	0.98	25	0.99	0.00	1.00
4	110-111	0.98	28	0.99	0.00	1.00
4	111-112	0.96	29	0.98	0.00	1.00
4	112-113	0.93	65	0.97	0.00	1.00
4	113-114	0.93	67	0.96	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	114-115	0.97	24	0.99	0.00	1.00
4	115-116	0.98	24	0.99	0.00	1.00
4	116-117	0.93	43	0.97	0.00	1.00
4	117-118	0.94	61	0.97	0.00	1.00
4	118-119	0.98	35	0.99	0.00	1.00
4	119-120	0.97	28	0.98	0.00	1.00
5	2-3	0.77	8	0.49	0.80	0.89
5	3-4	0.58	13	0.50	0.64	0.92
5	4-5	0.57	25	0.65	0.28	0.72
5	5-6	0.73	8	0.50	0.99	1.00
5	6-7	0.65	32	0.62	0.42	0.67
5	7-8	0.78	18	0.76	0.26	0.83
5	8-9	0.53	125	0.56	0.40	0.63
5	9-10	0.91	211	0.52	0.88	0.45
5	10-11	0.66	36	0.65	0.36	0.71
5	11-12	0.67	125	0.64	0.38	0.70
5	12-13	0.62	135	0.57	0.49	0.56
5	13-14	0.68	23	0.67	0.33	0.73
5	14-15	0.69	9	0.66	0.37	0.70
5	15-16	0.66	43	0.67	0.33	0.72
5	16-17	0.65	57	0.63	0.39	0.68
5	17-18	0.86	19	0.51	0.84	0.51
5	18-19	0.50	1	0.50	0.51	0.51
5	19-20	0.59	21	0.49	0.62	0.48
5	20-21	0.86	1	0.93	0.01	0.96
5	21-22	0.91	4	0.95	0.01	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	22-23	0.90	7	0.95	0.00	0.99
5	23-24	0.93	7	0.97	0.00	0.99
5	24-25	0.93	11	0.96	0.00	0.99
5	25-26	0.91	6	0.95	0.00	0.97
5	26-27	0.83	4	0.92	0.00	0.97
5	27-28	0.86	1	0.93	0.00	0.98
5	28-29	0.90	16	0.95	0.00	0.98
5	29-30	0.87	4	0.94	0.00	0.97
5	30-31	0.86	2	0.93	0.00	0.97
5	31-32	0.83	2	0.91	0.00	0.97
5	32-33	0.83	2	0.91	0.00	0.96
5	33-34	0.80	24	0.90	0.00	0.96
5	34-35	0.80	25	0.90	0.00	0.96
5	35-36	0.79	20	0.90	0.00	0.96
5	36-37	0.79	4	0.90	0.00	0.96
5	37-38	0.79	2	0.89	0.00	0.95
5	38-39	0.78	15	0.89	0.00	0.95
5	39-40	0.81	57	0.86	0.09	0.93
5	40-41	0.79	70	0.84	0.11	0.92
5	41-42	0.79	7	0.89	0.00	0.94
5	42-43	0.75	27	0.88	0.00	0.92
5	43-44	0.76	64	0.84	0.07	0.92
5	44-45	0.76	10	0.88	0.00	0.93
5	45-46	0.75	14	0.87	0.00	0.92
5	46-47	0.74	17	0.87	0.00	0.93
5	47-48	0.74	1	0.87	0.00	0.92

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	48-49	0.75	2	0.88	0.00	0.91
5	49-50	0.73	2	0.87	0.00	0.92
5	50-51	0.72	5	0.86	0.00	0.90
5	51-52	0.70	5	0.85	0.00	0.91
5	52-53	0.70	1	0.85	0.00	0.91
5	53-54	0.70	28	0.85	0.00	0.90
5	54-55	0.70	28	0.85	0.00	0.90
5	55-56	0.73	13	0.86	0.00	0.90
5	56-57	0.73	29	0.87	0.00	0.90
5	57-58	0.72	3	0.86	0.00	0.89
5	58-59	0.73	27	0.86	0.00	0.90
5	59-60	0.72	29	0.86	0.00	0.90
5	60-61	0.72	2	0.86	0.00	0.89
5	61-62	0.72	5	0.86	0.00	0.89
5	62-63	0.73	2	0.86	0.00	0.89
5	63-64	0.73	1	0.86	0.00	0.89
5	64-65	0.72	1	0.86	0.00	0.88
5	65-66	0.72	1	0.86	0.00	0.87
5	66-67	0.72	2	0.86	0.00	0.87
5	67-68	0.70	1	0.85	0.00	0.86
5	68-69	0.70	1	0.85	0.00	0.86
5	69-70	0.71	4	0.85	0.00	0.88
5	70-71	0.70	3	0.85	0.00	0.87
5	71-72	0.70	4	0.85	0.00	0.87
5	72-73	0.71	1	0.85	0.00	0.88
5	73-74	0.69	3	0.85	0.00	0.86

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	74-75	0.70	4	0.85	0.00	0.87
5	75-76	0.70	1	0.85	0.00	0.86
5	76-77	0.69	2	0.84	0.00	0.86
5	77-78	0.70	4	0.85	0.00	0.86
5	78-79	0.71	10	0.85	0.00	0.87
5	79-80	0.71	2	0.85	0.00	0.87
5	80-81	0.71	3	0.85	0.00	0.87
5	81-82	0.71	2	0.86	0.00	0.86
5	82-83	0.72	2	0.86	0.00	0.87
5	83-84	0.73	11	0.86	0.00	0.88
5	84-85	0.73	3	0.87	0.00	0.88
5	85-86	0.74	2	0.87	0.00	0.88
5	86-87	0.75	2	0.88	0.00	0.89
5	87-88	0.77	2	0.88	0.00	0.89
5	88-89	0.77	5	0.88	0.00	0.90
5	89-90	0.78	3	0.89	0.00	0.90
5	90-91	0.80	2	0.90	0.00	0.91
5	91-92	0.80	3	0.90	0.00	0.92
5	92-93	0.83	6	0.91	0.00	0.92
5	93-94	0.83	12	0.92	0.00	0.92
5	94-95	0.85	11	0.92	0.00	0.93
5	95-96	0.85	2	0.92	0.00	0.94
5	96-97	0.85	9	0.92	0.00	0.94
5	97-98	0.86	3	0.93	0.00	0.95
5	98-99	0.87	9	0.94	0.00	0.95
5	99-100	0.89	2	0.94	0.00	0.95

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	100-101	0.90	2	0.95	0.00	0.96
5	101-102	0.92	4	0.96	0.00	0.97
5	102-103	0.93	1	0.96	0.00	0.98
5	103-104	0.93	6	0.96	0.00	0.98
5	104-105	0.95	10	0.97	0.00	0.98
5	105-106	0.96	10	0.98	0.00	0.99
5	106-107	0.97	1	0.98	0.01	0.99
5	107-108	0.98	4	0.99	0.00	1.00
5	108-109	0.99	2	0.99	0.00	1.00
5	109-110	0.98	4	0.99	0.00	1.00
5	110-111	0.99	6	0.99	0.00	1.00
5	111-112	0.99	9	1.00	0.00	1.00
5	112-113	0.99	10	1.00	0.00	1.00
5	113-114	0.99	9	1.00	0.00	1.00
5	114-115	0.99	8	1.00	0.00	1.00
5	115-116	1.00	5	1.00	0.00	1.00
5	116-117	1.00	6	1.00	0.00	1.00
5	117-118	1.00	11	1.00	0.00	1.00
5	118-119	1.00	5	1.00	0.00	1.00
5	119-120	1.00	16	1.00	0.00	1.00
6	2-3	0.96	185	0.53	0.91	0.48
6	3-4	0.65	138	0.68	0.30	0.73
6	4-5	0.78	78	0.78	0.22	0.87
6	5-6	0.63	266	0.57	0.51	0.55
6	6-7	0.64	48	0.71	0.23	0.80
6	7-8	0.58	1	0.61	0.37	0.65

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	8-9	0.69	25	0.72	0.25	0.78
6	9-10	0.70	78	0.72	0.26	0.79
6	10-11	0.63	55	0.69	0.25	0.77
6	11-12	0.71	86	0.74	0.23	0.83
6	12-13	0.69	75	0.74	0.20	0.83
6	13-14	0.60	55	0.69	0.22	0.76
6	14-15	0.67	60	0.70	0.28	0.77
6	15-16	0.66	85	0.67	0.32	0.74
6	16-17	0.70	51	0.72	0.26	0.80
6	17-18	0.70	87	0.73	0.23	0.81
6	18-19	0.64	92	0.71	0.22	0.79
6	19-20	0.64	46	0.74	0.16	0.82
6	20-21	0.98	83	0.56	0.86	0.67
6	21-22	0.68	3	0.83	0.02	0.88
6	22-23	0.71	6	0.84	0.02	0.91
6	23-24	0.72	5	0.85	0.03	0.91
6	24-25	0.73	6	0.86	0.01	0.91
6	25-26	0.60	2	0.80	0.00	0.90
6	26-27	0.64	57	0.78	0.09	0.86
6	27-28	0.60	1	0.80	0.00	0.89
6	28-29	0.61	1	0.80	0.00	0.92
6	29-30	0.73	3	0.86	0.01	0.93
6	30-31	0.73	116	0.77	0.20	0.85
6	31-32	0.70	3	0.85	0.00	0.91
6	32-33	0.71	1	0.85	0.01	0.92
6	33-34	0.57	24	0.78	0.00	0.91

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	34-35	0.62	1	0.81	0.00	0.92
6	35-36	0.63	76	0.75	0.12	0.83
6	36-37	0.67	11	0.83	0.00	0.93
6	37-38	0.68	45	0.79	0.09	0.88
6	38-39	0.68	5	0.84	0.00	0.94
6	39-40	0.70	2	0.85	0.00	0.95
6	40-41	0.71	1	0.85	0.00	0.93
6	41-42	0.70	8	0.85	0.00	0.96
6	42-43	0.75	2	0.87	0.00	0.95
6	43-44	0.71	3	0.85	0.00	0.95
6	44-45	0.71	1	0.86	0.00	0.94
6	45-46	0.70	1	0.85	0.00	0.94
6	46-47	0.62	69	0.76	0.09	0.83
6	47-48	0.69	2	0.84	0.00	0.95
6	48-49	0.67	3	0.84	0.00	0.95
6	49-50	0.58	23	0.79	0.00	0.93
6	50-51	0.68	2	0.84	0.00	0.95
6	51-52	0.67	1	0.84	0.00	0.94
6	52-53	0.59	2	0.80	0.00	0.94
6	53-54	0.66	4	0.83	0.00	0.95
6	54-55	0.60	74	0.75	0.10	0.82
6	55-56	0.67	2	0.83	0.00	0.95
6	56-57	0.66	2	0.83	0.00	0.95
6	57-58	0.66	3	0.83	0.00	0.94
6	58-59	0.67	1	0.84	0.00	0.94
6	59-60	0.67	23	0.83	0.00	0.94

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	60-61	0.66	8	0.83	0.00	0.96
6	61-62	0.66	2	0.83	0.00	0.95
6	62-63	0.59	58	0.74	0.11	0.82
6	63-64	0.69	16	0.84	0.00	0.95
6	64-65	0.65	1	0.82	0.00	0.94
6	65-66	0.67	1	0.83	0.00	0.94
6	66-67	0.67	2	0.83	0.00	0.95
6	67-68	0.65	4	0.83	0.00	0.95
6	68-69	0.66	2	0.83	0.00	0.96
6	69-70	0.65	2	0.83	0.00	0.95
6	70-71	0.66	24	0.83	0.00	0.94
6	71-72	0.65	1	0.83	0.00	0.95
6	72-73	0.65	2	0.83	0.00	0.96
6	73-74	0.71	11	0.85	0.00	0.94
6	74-75	0.69	52	0.75	0.19	0.82
6	75-76	0.66	12	0.83	0.00	0.93
6	76-77	0.68	15	0.84	0.00	0.95
6	77-78	0.65	23	0.82	0.00	0.95
6	78-79	0.64	23	0.82	0.00	0.95
6	79-80	0.64	1	0.82	0.00	0.95
6	80-81	0.66	61	0.74	0.17	0.82
6	81-82	0.64	60	0.76	0.13	0.83
6	82-83	0.60	70	0.74	0.13	0.81
6	83-84	0.64	1	0.82	0.00	0.96
6	84-85	0.64	1	0.82	0.00	0.97
6	85-86	0.67	63	0.75	0.18	0.82

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	86-87	0.63	1	0.81	0.00	0.96
6	87-88	0.63	2	0.81	0.00	0.97
6	88-89	0.63	1	0.82	0.00	0.97
6	89-90	0.64	24	0.82	0.00	0.95
6	90-91	0.63	23	0.82	0.00	0.96
6	91-92	0.65	1	0.82	0.00	0.97
6	92-93	0.56	61	0.73	0.10	0.80
6	93-94	0.64	1	0.82	0.00	0.96
6	94-95	0.59	56	0.74	0.10	0.82
6	95-96	0.64	1	0.82	0.00	0.97
6	96-97	0.69	1	0.84	0.00	0.97
6	97-98	0.65	1	0.83	0.00	0.97
6	98-99	0.63	1	0.82	0.00	0.97
6	99-100	0.63	24	0.82	0.00	0.95
6	100-101	0.64	24	0.82	0.00	0.95
6	101-102	0.63	24	0.81	0.00	0.95
6	102-103	0.63	24	0.81	0.00	0.95
6	103-104	0.64	1	0.82	0.00	0.97
6	104-105	0.64	23	0.82	0.00	0.95
6	105-106	0.65	24	0.83	0.00	0.94
6	106-107	0.64	23	0.82	0.00	0.96
6	107-108	0.63	2	0.82	0.00	0.98
6	108-109	0.65	1	0.82	0.00	0.98
6	109-110	0.65	1	0.83	0.00	0.98
6	110-111	0.66	1	0.83	0.00	0.98
6	111-112	0.65	1	0.83	0.00	0.98

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	112-113	0.67	1	0.84	0.00	0.99
6	113-114	0.66	2	0.83	0.00	0.99
6	114-115	0.66	3	0.83	0.00	0.99
6	115-116	0.67	1	0.83	0.00	0.99
6	116-117	0.67	2	0.83	0.00	0.99
6	117-118	0.68	1	0.84	0.00	0.99
6	118-119	0.67	1	0.83	0.00	0.99
6	119-120	0.67	1	0.84	0.00	0.99
7	2-3	1.00	1	1.00	0.00	1.00
7	3-4	1.00	1	1.00	0.00	1.00
7	4-5	1.00	1	1.00	0.00	1.00
7	5-6	0.97	3	0.99	0.00	1.00
7	6-7	1.00	1	1.00	0.00	1.00
7	7-8	0.90	1	0.95	0.00	1.00
7	8-9	1.00	17	1.00	0.00	1.00
7	9-10	0.91	66	0.94	0.03	0.99
7	10-11	0.91	47	0.95	0.02	0.99
7	11-12	0.87	4	0.94	0.00	1.00
7	12-13	0.89	2	0.95	0.00	1.00
7	13-14	0.88	5	0.94	0.00	1.00
7	14-15	0.86	49	0.92	0.02	0.97
7	15-16	0.85	3	0.92	0.00	0.99
7	16-17	0.84	18	0.92	0.00	1.00
7	17-18	0.83	11	0.91	0.00	1.00
7	18-19	0.83	1	0.91	0.00	1.00
7	19-20	0.83	21	0.92	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	20-21	0.82	22	0.91	0.00	1.00
7	21-22	0.73	3	0.86	0.00	1.00
7	22-23	0.79	2	0.90	0.00	1.00
7	23-24	0.77	4	0.89	0.00	1.00
7	24-25	0.78	22	0.89	0.00	1.00
7	25-26	0.77	8	0.89	0.00	1.00
7	26-27	0.78	11	0.89	0.00	1.00
7	27-28	0.76	4	0.88	0.00	1.00
7	28-29	0.76	6	0.88	0.00	1.00
7	29-30	0.77	6	0.89	0.00	1.00
7	30-31	1.00	1	1.00	0.00	1.00
7	31-32	0.95	4	0.97	0.00	1.00
7	32-33	1.00	3	1.00	0.00	1.00
7	33-34	1.00	11	1.00	0.00	1.00
7	34-35	1.00	2	1.00	0.00	1.00
7	35-36	1.00	7	1.00	0.00	1.00
7	36-37	1.00	1	1.00	0.00	1.00
7	37-38	1.00	3	1.00	0.00	1.00
7	38-39	1.00	1	1.00	0.00	1.00
7	39-40	1.00	1	1.00	0.00	1.00
7	40-41	1.00	5	1.00	0.00	1.00
7	41-42	1.00	2	1.00	0.00	1.00
7	42-43	1.00	2	1.00	0.00	1.00
7	43-44	0.97	9	0.99	0.00	1.00
7	44-45	1.00	2	1.00	0.00	1.00
7	45-46	1.00	1	1.00	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	46-47	1.00	2	1.00	0.00	1.00
7	47-48	1.00	4	1.00	0.00	1.00
7	48-49	1.00	2	1.00	0.00	1.00
7	49-50	1.00	2	1.00	0.00	1.00
7	50-51	1.00	1	1.00	0.00	1.00
7	51-52	1.00	6	1.00	0.00	1.00
7	52-53	1.00	5	1.00	0.00	1.00
7	53-54	1.00	4	1.00	0.00	1.00
7	54-55	1.00	1	1.00	0.00	1.00
7	55-56	1.00	3	1.00	0.00	1.00
7	56-57	1.00	1	1.00	0.00	1.00
7	57-58	0.97	16	0.98	0.00	1.00
7	58-59	1.00	3	1.00	0.00	1.00
7	59-60	1.00	1	1.00	0.00	1.00
7	60-61	1.00	7	1.00	0.00	1.00
7	61-62	1.00	1	1.00	0.00	1.00
7	62-63	1.00	4	1.00	0.00	1.00
7	63-64	1.00	4	1.00	0.00	1.00
7	64-65	1.00	5	1.00	0.00	1.00
7	65-66	1.00	3	1.00	0.00	1.00
7	66-67	1.00	3	1.00	0.00	1.00
7	67-68	1.00	3	1.00	0.00	1.00
7	68-69	0.96	8	0.98	0.00	1.00
7	69-70	0.95	5	0.98	0.00	1.00
7	70-71	1.00	1	1.00	0.00	1.00
7	71-72	1.00	4	1.00	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	72-73	1.00	1	1.00	0.00	1.00
7	73-74	1.00	5	1.00	0.00	1.00
7	74-75	0.95	14	0.97	0.00	1.00
7	75-76	0.96	7	0.98	0.00	1.00
7	76-77	1.00	4	1.00	0.00	1.00
7	77-78	1.00	5	1.00	0.00	1.00
7	78-79	1.00	11	1.00	0.00	1.00
7	79-80	1.00	2	1.00	0.00	1.00
7	80-81	1.00	4	1.00	0.00	1.00
7	81-82	1.00	4	1.00	0.00	1.00
7	82-83	1.00	4	1.00	0.00	1.00
7	83-84	0.95	10	0.98	0.00	1.00
7	84-85	1.00	1	1.00	0.00	1.00
7	85-86	1.00	10	1.00	0.00	1.00
7	86-87	0.95	5	0.98	0.00	1.00
7	87-88	1.00	4	1.00	0.00	1.00
7	88-89	1.00	4	1.00	0.00	1.00
7	89-90	1.00	6	1.00	0.00	1.00
7	90-91	0.96	11	0.98	0.00	1.00
7	91-92	0.96	14	0.98	0.00	1.00
7	92-93	1.00	1	1.00	0.00	1.00
7	93-94	1.00	12	1.00	0.00	1.00
7	94-95	1.00	6	1.00	0.00	1.00
7	95-96	1.00	7	1.00	0.00	1.00
7	96-97	1.00	1	1.00	0.00	1.00
7	97-98	1.00	3	1.00	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	98-99	0.94	10	0.97	0.00	1.00
7	99-100	1.00	6	1.00	0.00	1.00
7	100-101	1.00	1	1.00	0.00	1.00
7	101-102	1.00	5	1.00	0.00	1.00
7	102-103	1.00	6	1.00	0.00	1.00
7	103-104	1.00	11	1.00	0.00	1.00
7	104-105	1.00	3	1.00	0.00	1.00
7	105-106	1.00	5	1.00	0.00	1.00
7	106-107	0.95	15	0.98	0.00	1.00
7	107-108	1.00	1	1.00	0.00	1.00
7	108-109	1.00	1	1.00	0.00	1.00
7	109-110	0.96	17	0.98	0.00	1.00
7	110-111	0.95	15	0.98	0.00	1.00
7	111-112	1.00	1	1.00	0.00	1.00
7	112-113	1.00	6	1.00	0.00	1.00
7	113-114	1.00	1	1.00	0.00	1.00
7	114-115	1.00	1	1.00	0.00	1.00
7	115-116	0.95	12	0.97	0.00	1.00
7	116-117	1.00	1	1.00	0.00	1.00
7	117-118	1.00	4	1.00	0.00	1.00
7	118-119	1.00	1	1.00	0.00	1.00
7	119-120	0.75	1	0.88	0.00	1.00
8	2-3	0.90	30	0.93	0.04	0.99
8	3-4	0.85	16	0.88	0.09	0.96
8	4-5	0.92	21	0.94	0.05	0.99
8	5-6	0.98	38	0.97	0.03	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	6-7	0.83	34	0.89	0.05	0.96
8	7-8	0.82	23	0.88	0.06	0.96
8	8-9	0.83	43	0.89	0.04	0.96
8	9-10	0.86	53	0.88	0.10	0.95
8	10-11	0.85	94	0.86	0.13	0.94
8	11-12	0.83	69	0.86	0.12	0.93
8	12-13	0.83	69	0.88	0.06	0.95
8	13-14	0.87	85	0.88	0.11	0.95
8	14-15	0.75	64	0.85	0.06	0.92
8	15-16	0.80	38	0.82	0.17	0.89
8	16-17	0.74	69	0.81	0.12	0.89
8	17-18	0.68	66	0.79	0.09	0.88
8	18-19	0.84	42	0.87	0.09	0.94
8	19-20	0.83	52	0.85	0.13	0.93
8	20-21	0.83	69	0.85	0.13	0.92
8	21-22	0.98	2	0.99	0.00	1.00
8	22-23	0.85	5	0.92	0.00	0.98
8	23-24	0.97	5	0.98	0.00	0.99
8	24-25	0.98	2	0.99	0.00	1.00
8	25-26	0.98	10	0.99	0.00	1.00
8	26-27	0.98	6	0.99	0.00	1.00
8	27-28	0.98	4	0.99	0.00	1.00
8	28-29	0.97	3	0.99	0.00	1.00
8	29-30	0.99	14	0.99	0.00	1.00
8	30-31	0.99	4	1.00	0.00	1.00
8	31-32	0.99	7	1.00	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	32-33	0.99	2	0.99	0.00	1.00
8	33-34	0.99	2	1.00	0.00	1.00
8	34-35	0.99	3	1.00	0.00	1.00
8	35-36	1.00	6	1.00	0.00	1.00
8	36-37	0.98	6	0.99	0.00	1.00
8	37-38	0.98	9	0.99	0.00	1.00
8	38-39	0.98	7	0.99	0.00	1.00
8	39-40	0.98	4	0.99	0.00	1.00
8	40-41	0.97	5	0.99	0.00	1.00
8	41-42	0.97	5	0.98	0.00	1.00
8	42-43	0.97	2	0.99	0.00	1.00
8	43-44	0.98	8	0.99	0.00	1.00
8	44-45	0.97	6	0.98	0.00	1.00
8	45-46	0.98	9	0.99	0.00	1.00
8	46-47	0.97	3	0.99	0.00	1.00
8	47-48	0.97	11	0.98	0.00	1.00
8	48-49	0.97	14	0.99	0.00	1.00
8	49-50	0.97	6	0.99	0.00	1.00
8	50-51	0.98	10	0.99	0.00	1.00
8	51-52	0.97	7	0.99	0.00	1.00
8	52-53	0.98	3	0.99	0.00	1.00
8	53-54	0.98	7	0.99	0.00	1.00
8	54-55	0.97	22	0.99	0.00	1.00
8	55-56	0.98	41	0.99	0.00	1.00
8	56-57	0.98	4	0.99	0.00	1.00
8	57-58	0.98	3	0.99	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	58-59	0.97	4	0.99	0.00	1.00
8	59-60	0.97	3	0.99	0.00	1.00
8	60-61	0.97	13	0.98	0.00	1.00
8	61-62	0.97	42	0.98	0.00	1.00
8	62-63	0.97	53	0.98	0.00	1.00
8	63-64	0.98	50	0.99	0.00	1.00
8	64-65	0.99	20	0.99	0.00	1.00
8	65-66	0.98	13	0.99	0.00	1.00
8	66-67	0.98	3	0.99	0.00	1.00
8	67-68	0.98	9	0.99	0.00	1.00
8	68-69	0.98	9	0.99	0.00	1.00
8	69-70	0.98	6	0.99	0.00	1.00
8	70-71	0.98	6	0.99	0.00	1.00
8	71-72	0.98	8	0.99	0.00	1.00
8	72-73	0.97	11	0.99	0.00	1.00
8	73-74	0.97	3	0.99	0.00	1.00
8	74-75	0.98	12	0.99	0.00	1.00
8	75-76	0.99	18	0.99	0.00	1.00
8	76-77	0.98	35	0.99	0.00	1.00
8	77-78	0.98	35	0.99	0.00	1.00
8	78-79	0.98	40	0.99	0.00	1.00
8	79-80	0.98	32	0.99	0.00	1.00
8	80-81	0.98	34	0.99	0.00	1.00
8	81-82	0.98	10	0.99	0.00	1.00
8	82-83	0.99	37	1.00	0.00	1.00
8	83-84	0.99	6	0.99	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	84-85	0.98	2	0.99	0.00	1.00
8	85-86	0.98	40	0.99	0.00	1.00
8	86-87	0.99	68	0.99	0.00	1.00
8	87-88	0.99	50	0.99	0.00	1.00
8	88-89	0.98	48	0.99	0.00	1.00
8	89-90	0.98	73	0.99	0.00	1.00
8	90-91	0.99	36	0.99	0.00	1.00
8	91-92	0.98	36	0.99	0.00	1.00
8	92-93	0.99	16	0.99	0.01	1.00
8	93-94	0.99	14	0.99	0.00	1.00
8	94-95	0.98	39	0.99	0.00	1.00
8	95-96	0.99	8	0.99	0.01	1.00
8	96-97	0.99	25	0.99	0.00	1.00
8	97-98	0.99	64	0.99	0.00	1.00
8	98-99	0.99	66	0.99	0.00	1.00
8	99-100	0.98	66	0.99	0.00	1.00
8	100-101	0.98	3	0.99	0.00	1.00
8	101-102	0.99	21	0.99	0.00	1.00
8	102-103	0.99	21	1.00	0.00	1.00
8	103-104	0.99	37	0.99	0.00	1.00
8	104-105	0.99	42	0.99	0.00	1.00
8	105-106	0.99	57	0.99	0.00	1.00
8	106-107	0.99	67	0.99	0.00	1.00
8	107-108	0.99	6	0.99	0.00	1.00
8	108-109	0.99	72	0.99	0.00	1.00
8	109-110	1.00	51	1.00	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	110-111	0.99	31	1.00	0.00	1.00
8	111-112	1.00	19	1.00	0.00	1.00
8	112-113	1.00	8	1.00	0.00	1.00
8	113-114	1.00	44	1.00	0.00	1.00
8	114-115	0.99	72	1.00	0.00	1.00
8	115-116	1.00	77	1.00	0.00	1.00
8	116-117	0.99	74	1.00	0.00	1.00
8	117-118	0.99	73	1.00	0.00	1.00
8	118-119	1.00	7	1.00	0.00	1.00
8	119-120	0.99	70	1.00	0.00	1.00
9	2-3	0.98	55	0.98	0.02	1.00
9	3-4	0.95	25	0.97	0.01	1.00
9	4-5	0.73	24	0.85	0.03	0.93
9	5-6	0.76	19	0.85	0.06	0.95
9	6-7	0.75	26	0.84	0.07	0.94
9	7-8	0.58	33	0.78	0.01	0.84
9	8-9	0.64	47	0.80	0.03	0.86
9	9-10	0.60	75	0.77	0.07	0.87
9	10-11	0.56	21	0.74	0.08	0.81
9	11-12	0.51	23	0.71	0.09	0.81
9	12-13	0.46	64	0.72	0.02	0.83
9	13-14	0.41	22	0.70	0.00	0.76
9	14-15	0.59	8	0.71	0.18	0.78
9	15-16	0.40	5	0.70	0.00	0.76
9	16-17	0.51	29	0.73	0.05	0.79
9	17-18	0.43	31	0.70	0.02	0.78

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	18-19	0.43	25	0.70	0.03	0.77
9	19-20	0.35	7	0.66	0.02	0.73
9	20-21	0.31	3	0.66	0.00	0.70
9	21-22	0.61	36	0.72	0.18	0.79
9	22-23	0.54	31	0.69	0.16	0.76
9	23-24	0.52	41	0.70	0.11	0.76
9	24-25	0.44	27	0.68	0.07	0.77
9	25-26	0.45	30	0.69	0.06	0.79
9	26-27	0.35	36	0.67	0.02	0.75
9	27-28	0.53	36	0.71	0.10	0.78
9	28-29	0.43	92	0.69	0.05	0.76
9	29-30	0.56	32	0.71	0.14	0.79
9	30-31	0.62	38	0.73	0.16	0.81
9	31-32	0.50	67	0.70	0.10	0.78
9	32-33	0.50	75	0.70	0.10	0.76
9	33-34	0.54	49	0.72	0.09	0.80
9	34-35	0.58	57	0.74	0.10	0.81
9	35-36	0.56	77	0.72	0.12	0.80
9	36-37	0.55	62	0.73	0.09	0.79
9	37-38	0.56	73	0.74	0.08	0.80
9	38-39	0.57	62	0.72	0.13	0.80
9	39-40	0.55	65	0.71	0.12	0.80
9	40-41	0.54	59	0.72	0.10	0.79
9	41-42	0.58	101	0.72	0.15	0.78
9	42-43	0.49	104	0.70	0.08	0.77
9	43-44	0.77	1	0.53	0.72	0.54

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	44-45	0.54	31	0.71	0.11	0.78
9	45-46	0.83	2	0.51	0.80	0.52
9	46-47	0.62	74	0.72	0.18	0.78
9	47-48	0.52	74	0.71	0.10	0.79
9	48-49	0.55	99	0.70	0.15	0.77
9	49-50	0.50	77	0.70	0.11	0.77
9	50-51	0.51	65	0.71	0.10	0.77
9	51-52	0.57	77	0.71	0.16	0.77
9	52-53	0.81	1	0.51	0.80	0.50
9	53-54	0.80	2	0.52	0.76	0.53
9	54-55	0.55	78	0.70	0.15	0.77
9	55-56	0.57	79	0.72	0.13	0.78
9	56-57	0.49	67	0.69	0.12	0.76
9	57-58	0.50	47	0.69	0.12	0.76
9	58-59	0.54	57	0.71	0.12	0.79
9	59-60	0.52	63	0.71	0.10	0.79
9	60-61	0.44	87	0.68	0.07	0.76
9	61-62	0.40	46	0.67	0.06	0.76
9	62-63	0.44	75	0.69	0.07	0.75
9	63-64	0.46	71	0.69	0.09	0.76
9	64-65	0.43	63	0.67	0.09	0.75
9	65-66	0.37	66	0.67	0.04	0.75
9	66-67	0.44	55	0.68	0.08	0.75
9	67-68	0.43	42	0.68	0.07	0.76
9	68-69	0.42	89	0.67	0.07	0.73
9	69-70	0.44	66	0.68	0.09	0.74

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	70-71	0.35	78	0.66	0.03	0.74
9	71-72	0.37	89	0.67	0.03	0.73
9	72-73	0.43	64	0.67	0.10	0.74
9	73-74	0.49	53	0.69	0.11	0.75
9	74-75	0.49	64	0.68	0.13	0.75
9	75-76	0.43	69	0.66	0.11	0.73
9	76-77	0.45	98	0.67	0.12	0.72
9	77-78	0.36	6	0.66	0.04	0.71
9	78-79	0.32	76	0.64	0.04	0.72
9	79-80	0.29	89	0.64	0.01	0.73
9	80-81	0.41	84	0.66	0.08	0.74
9	81-82	0.44	85	0.67	0.11	0.73
9	82-83	0.44	81	0.66	0.12	0.72
9	83-84	0.37	95	0.64	0.08	0.70
9	84-85	0.39	57	0.66	0.07	0.73
9	85-86	0.41	71	0.66	0.08	0.74
9	86-87	0.44	49	0.67	0.11	0.75
9	87-88	0.49	71	0.67	0.15	0.73
9	88-89	0.48	84	0.67	0.13	0.74
9	89-90	0.41	74	0.66	0.08	0.72
9	90-91	0.37	62	0.64	0.08	0.71
9	91-92	0.31	56	0.63	0.04	0.68
9	92-93	0.31	46	0.63	0.04	0.69
9	93-94	0.31	115	0.63	0.05	0.69
9	94-95	0.42	64	0.65	0.12	0.72
9	95-96	0.33	72	0.64	0.05	0.69

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	96-97	0.33	88	0.63	0.08	0.69
9	97-98	0.45	92	0.66	0.14	0.72
9	98-99	0.43	63	0.64	0.15	0.70
9	99-100	0.37	73	0.65	0.08	0.70
9	100-101	0.43	54	0.64	0.15	0.70
9	101-102	0.39	62	0.64	0.10	0.70
9	102-103	0.37	53	0.64	0.10	0.70
9	103-104	0.45	33	0.65	0.16	0.70
9	104-105	0.44	74	0.65	0.14	0.71
9	105-106	0.33	81	0.63	0.08	0.69
9	106-107	0.41	1	0.52	0.36	0.54
9	107-108	0.35	91	0.62	0.11	0.67
9	108-109	0.37	55	0.62	0.12	0.68
9	109-110	0.42	61	0.63	0.15	0.70
9	110-111	0.43	72	0.64	0.15	0.69
9	111-112	0.39	44	0.62	0.15	0.67
9	112-113	0.36	49	0.62	0.11	0.67
9	113-114	0.41	50	0.63	0.16	0.68
9	114-115	0.40	45	0.62	0.16	0.67
9	115-116	0.42	58	0.63	0.16	0.68
9	116-117	0.34	46	0.62	0.10	0.67
9	117-118	0.31	46	0.61	0.09	0.66
9	118-119	0.42	56	0.63	0.16	0.68
9	119-120	0.43	62	0.64	0.16	0.69
10	2-3	0.99	24	0.93	0.12	1.00
10	3-4	0.94	12	0.93	0.08	0.97

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	4-5	0.91	28	0.93	0.04	0.99
10	5-6	0.89	29	0.89	0.11	0.97
10	6-7	0.78	13	0.84	0.10	0.91
10	7-8	0.73	75	0.84	0.05	0.91
10	8-9	0.86	79	0.86	0.13	0.94
10	9-10	0.83	56	0.88	0.06	0.96
10	10-11	0.86	49	0.87	0.13	0.94
10	11-12	0.84	35	0.88	0.07	0.96
10	12-13	0.85	51	0.89	0.08	0.97
10	13-14	0.79	42	0.87	0.04	0.95
10	14-15	0.84	46	0.90	0.05	0.96
10	15-16	0.84	57	0.91	0.03	0.96
10	16-17	0.83	63	0.90	0.04	0.97
10	17-18	0.82	37	0.90	0.02	0.97
10	18-19	0.80	57	0.88	0.04	0.94
10	19-20	0.80	53	0.87	0.05	0.94
10	20-21	0.80	40	0.89	0.03	0.95
10	21-22	0.73	5	0.86	0.02	0.94
10	22-23	0.66	31	0.82	0.03	0.91
10	23-24	0.74	4	0.87	0.00	0.96
10	24-25	0.62	63	0.78	0.07	0.88
10	25-26	0.63	65	0.77	0.08	0.86
10	26-27	0.61	62	0.77	0.08	0.84
10	27-28	0.49	86	0.73	0.04	0.81
10	28-29	0.48	78	0.73	0.03	0.81
10	29-30	0.61	45	0.74	0.12	0.82

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	30-31	0.63	41	0.75	0.13	0.82
10	31-32	0.47	77	0.72	0.04	0.82
10	32-33	0.62	50	0.73	0.16	0.81
10	33-34	0.62	28	0.72	0.17	0.81
10	34-35	0.45	65	0.70	0.05	0.78
10	35-36	0.52	92	0.71	0.09	0.80
10	36-37	0.68	104	0.75	0.19	0.82
10	37-38	0.61	56	0.72	0.17	0.80
10	38-39	0.64	54	0.73	0.18	0.81
10	39-40	0.53	48	0.71	0.11	0.79
10	40-41	0.55	63	0.71	0.13	0.77
10	41-42	0.53	24	0.70	0.14	0.76
10	42-43	0.51	40	0.69	0.13	0.76
10	43-44	0.51	47	0.68	0.14	0.76
10	44-45	0.73	94	0.71	0.30	0.79
10	45-46	0.92	1	0.76	0.40	0.94
10	46-47	0.91	6	0.81	0.30	0.91
10	47-48	0.88	8	0.84	0.20	0.92
10	48-49	0.90	38	0.88	0.15	0.94
10	49-50	0.90	55	0.90	0.11	0.95
10	50-51	0.91	46	0.91	0.08	0.97
10	51-52	0.92	52	0.93	0.07	0.97
10	52-53	0.92	35	0.93	0.06	0.97
10	53-54	0.91	37	0.93	0.04	0.98
10	54-55	0.92	24	0.94	0.03	0.98
10	55-56	0.92	10	0.94	0.04	0.99

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	56-57	0.94	10	0.96	0.02	0.99
10	57-58	0.90	5	0.94	0.01	0.99
10	58-59	0.94	17	0.96	0.01	0.99
10	59-60	0.94	83	0.96	0.01	0.99
10	60-61	0.95	75	0.97	0.02	1.00
10	61-62	0.97	12	0.97	0.02	1.00
10	62-63	0.97	11	0.97	0.02	1.00
10	63-64	0.96	38	0.98	0.00	1.00
10	64-65	0.96	18	0.98	0.00	1.00
10	65-66	0.96	89	0.98	0.01	1.00
10	66-67	0.97	11	0.98	0.01	1.00
10	67-68	0.98	25	0.99	0.01	1.00
10	68-69	0.98	16	0.99	0.00	1.00
10	69-70	0.97	14	0.98	0.01	1.00
10	70-71	0.98	15	0.98	0.01	1.00
10	71-72	0.97	12	0.98	0.01	1.00
10	72-73	0.98	13	0.99	0.01	1.00
10	73-74	0.97	12	0.98	0.01	1.00
10	74-75	0.97	13	0.98	0.01	1.00
10	75-76	0.97	7	0.98	0.01	1.00
10	76-77	0.98	41	0.99	0.00	1.00
10	77-78	0.98	7	0.99	0.00	1.00
10	78-79	0.99	8	0.99	0.01	1.00
10	79-80	0.97	7	0.98	0.01	1.00
10	80-81	0.98	6	0.99	0.01	1.00
10	81-82	0.99	10	0.99	0.01	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	82-83	0.97	7	0.98	0.00	1.00
10	83-84	0.97	9	0.98	0.00	1.00
10	84-85	0.98	11	0.99	0.00	1.00
10	85-86	0.98	11	0.98	0.01	1.00
10	86-87	0.98	7	0.99	0.00	1.00
10	87-88	0.98	9	0.99	0.01	1.00
10	88-89	0.98	10	0.99	0.00	1.00
10	89-90	0.98	13	0.99	0.00	1.00
10	90-91	0.97	8	0.98	0.00	1.00
10	91-92	0.98	10	0.98	0.01	1.00
10	92-93	0.96	11	0.98	0.00	1.00
10	93-94	0.98	11	0.99	0.00	1.00
10	94-95	0.97	11	0.99	0.00	1.00
10	95-96	0.98	9	0.99	0.01	1.00
10	96-97	0.98	7	0.99	0.01	1.00
10	97-98	0.97	8	0.98	0.00	1.00
10	98-99	0.98	13	0.99	0.00	1.00
10	99-100	0.98	7	0.98	0.01	1.00
10	100-101	0.98	8	0.99	0.00	1.00
10	101-102	0.98	8	0.99	0.00	1.00
10	102-103	0.98	11	0.99	0.00	1.00
10	103-104	0.98	15	0.99	0.00	1.00
10	104-105	0.97	7	0.98	0.01	1.00
10	105-106	0.97	6	0.98	0.01	1.00
10	106-107	0.98	6	0.98	0.01	1.00
10	107-108	0.98	12	0.99	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	108-109	0.98	9	0.99	0.00	1.00
10	109-110	0.98	13	0.99	0.01	1.00
10	110-111	0.98	13	0.99	0.01	1.00
10	111-112	0.98	10	0.99	0.00	1.00
10	112-113	0.98	13	0.99	0.00	1.00
10	113-114	0.99	7	0.99	0.01	1.00
10	114-115	0.98	12	0.99	0.00	1.00
10	115-116	0.98	10	0.99	0.01	1.00
10	116-117	0.99	14	0.99	0.00	1.00
10	117-118	0.99	11	0.99	0.00	1.00
10	118-119	0.99	13	0.99	0.00	1.00
10	119-120	0.99	16	0.99	0.00	1.00
11	2-3	0.96	21	0.98	0.00	1.00
11	3-4	0.89	22	0.94	0.01	0.98
11	4-5	0.89	56	0.93	0.02	0.99
11	5-6	0.88	48	0.91	0.07	0.96
11	6-7	0.86	4	0.91	0.04	0.97
11	7-8	0.79	10	0.86	0.08	0.92
11	8-9	0.75	20	0.83	0.10	0.88
11	9-10	0.75	218	0.72	0.30	0.80
11	10-11	0.77	44	0.85	0.08	0.93
11	11-12	0.66	25	0.80	0.06	0.90
11	12-13	0.74	13	0.82	0.10	0.88
11	13-14	0.69	25	0.78	0.13	0.86
11	14-15	0.67	47	0.74	0.19	0.83
11	15-16	0.71	79	0.74	0.22	0.83

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	16-17	0.60	38	0.70	0.19	0.77
11	17-18	0.64	37	0.69	0.27	0.75
11	18-19	0.63	13	0.66	0.31	0.73
11	19-20	0.35	18	0.62	0.12	0.70
11	20-21	0.56	46	0.66	0.23	0.73
11	21-22	0.60	18	0.66	0.27	0.73
11	22-23	0.63	60	0.65	0.33	0.72
11	23-24	0.59	47	0.66	0.26	0.74
11	24-25	0.54	32	0.63	0.28	0.70
11	25-26	0.60	16	0.66	0.28	0.73
11	26-27	0.70	47	0.70	0.31	0.77
11	27-28	0.70	67	0.70	0.31	0.76
11	28-29	0.62	31	0.67	0.27	0.74
11	29-30	0.68	63	0.70	0.27	0.77
11	30-31	0.86	224	0.56	0.73	0.59
11	31-32	0.68	95	0.66	0.35	0.74
11	32-33	0.67	55	0.70	0.28	0.77
11	33-34	1.00	112	0.50	0.99	0.56
11	34-35	0.67	189	0.64	0.39	0.71
11	35-36	0.63	151	0.69	0.26	0.74
11	36-37	0.64	97	0.72	0.21	0.78
11	37-38	0.70	80	0.73	0.24	0.80
11	38-39	0.65	116	0.73	0.19	0.80
11	39-40	0.67	110	0.72	0.23	0.81
11	40-41	0.70	74	0.73	0.25	0.81
11	41-42	0.67	52	0.69	0.30	0.76

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	42-43	0.63	39	0.71	0.21	0.79
11	43-44	0.61	66	0.72	0.16	0.80
11	44-45	0.60	93	0.73	0.13	0.80
11	45-46	0.61	55	0.73	0.15	0.80
11	46-47	0.62	25	0.73	0.17	0.79
11	47-48	0.61	95	0.71	0.18	0.79
11	48-49	0.59	66	0.72	0.15	0.79
11	49-50	0.58	94	0.71	0.17	0.77
11	50-51	0.60	56	0.73	0.15	0.80
11	51-52	0.62	39	0.74	0.15	0.80
11	52-53	0.58	47	0.71	0.16	0.77
11	53-54	0.61	84	0.72	0.16	0.80
11	54-55	0.68	72	0.73	0.21	0.81
11	55-56	0.58	50	0.72	0.14	0.79
11	56-57	0.61	38	0.73	0.16	0.80
11	57-58	0.59	45	0.71	0.17	0.79
11	58-59	0.60	36	0.73	0.14	0.80
11	59-60	0.59	20	0.72	0.14	0.79
11	60-61	0.59	36	0.73	0.14	0.80
11	61-62	0.60	26	0.72	0.16	0.79
11	62-63	0.60	2	0.75	0.10	0.82
11	63-64	0.61	14	0.73	0.15	0.81
11	64-65	0.60	2	0.76	0.08	0.81
11	65-66	0.61	2	0.76	0.09	0.82
11	66-67	0.64	2	0.77	0.10	0.83
11	67-68	0.64	2	0.77	0.09	0.83

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	68-69	0.64	2	0.78	0.09	0.84
11	69-70	0.64	2	0.77	0.10	0.83
11	70-71	0.68	2	0.80	0.08	0.85
11	71-72	0.67	2	0.80	0.08	0.85
11	72-73	0.60	2	0.77	0.05	0.86
11	73-74	0.66	2	0.78	0.10	0.85
11	74-75	0.66	2	0.79	0.09	0.86
11	75-76	0.66	2	0.80	0.06	0.87
11	76-77	0.71	2	0.81	0.08	0.88
11	77-78	0.69	2	0.81	0.07	0.87
11	78-79	0.67	2	0.81	0.05	0.86
11	79-80	0.67	2	0.79	0.08	0.86
11	80-81	0.68	2	0.81	0.06	0.88
11	81-82	0.68	2	0.81	0.06	0.89
11	82-83	0.70	2	0.83	0.05	0.89
11	83-84	0.66	2	0.80	0.07	0.87
11	84-85	0.67	2	0.80	0.06	0.87
11	85-86	0.71	2	0.82	0.07	0.88
11	86-87	0.67	2	0.80	0.06	0.87
11	87-88	0.69	2	0.81	0.06	0.87
11	88-89	0.70	2	0.82	0.07	0.89
11	89-90	0.65	2	0.80	0.04	0.88
11	90-91	0.68	2	0.80	0.08	0.87
11	91-92	0.68	2	0.81	0.07	0.88
11	92-93	0.68	2	0.80	0.08	0.87
11	93-94	0.68	2	0.80	0.09	0.87

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	94-95	0.70	2	0.82	0.07	0.89
11	95-96	0.68	2	0.81	0.06	0.88
11	96-97	0.70	2	0.82	0.06	0.89
11	97-98	0.68	2	0.80	0.07	0.88
11	98-99	0.69	2	0.81	0.07	0.88
11	99-100	0.70	2	0.81	0.07	0.88
11	100-101	0.67	2	0.80	0.06	0.88
11	101-102	0.69	2	0.81	0.07	0.88
11	102-103	0.69	2	0.82	0.05	0.88
11	103-104	0.68	2	0.82	0.05	0.87
11	104-105	0.71	2	0.82	0.08	0.88
11	105-106	0.71	2	0.82	0.07	0.89
11	106-107	0.71	2	0.82	0.06	0.88
11	107-108	0.68	2	0.81	0.07	0.88
11	108-109	0.67	2	0.80	0.07	0.87
11	109-110	0.67	2	0.80	0.07	0.87
11	110-111	0.70	2	0.82	0.06	0.88
11	111-112	0.71	2	0.83	0.05	0.89
11	112-113	0.69	2	0.82	0.06	0.88
11	113-114	0.65	2	0.80	0.04	0.88
11	114-115	0.66	2	0.81	0.04	0.89
11	115-116	0.71	2	0.82	0.06	0.90
11	116-117	0.68	2	0.80	0.08	0.89
11	117-118	0.70	2	0.81	0.08	0.88
11	118-119	0.70	2	0.81	0.07	0.88
11	119-120	0.64	2	0.81	0.02	0.88

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	2-3	0.73	12	0.83	0.06	0.90
12	3-4	0.86	78	0.91	0.05	0.97
12	4-5	0.89	51	0.91	0.06	0.97
12	5-6	0.87	48	0.91	0.06	0.96
12	6-7	0.77	42	0.85	0.08	0.93
12	7-8	0.75	33	0.84	0.07	0.92
12	8-9	0.75	62	0.81	0.13	0.89
12	9-10	0.70	90	0.79	0.13	0.87
12	10-11	0.67	26	0.81	0.05	0.88
12	11-12	0.63	29	0.76	0.11	0.81
12	12-13	0.67	80	0.79	0.09	0.86
12	13-14	0.67	84	0.78	0.10	0.86
12	14-15	0.53	65	0.74	0.05	0.81
12	15-16	0.60	15	0.74	0.11	0.79
12	16-17	0.60	30	0.76	0.08	0.82
12	17-18	0.59	42	0.75	0.08	0.83
12	18-19	0.57	35	0.74	0.08	0.83
12	19-20	0.49	11	0.74	0.02	0.78
12	20-21	0.51	4	0.75	0.00	0.83
12	21-22	0.57	53	0.74	0.09	0.82
12	22-23	0.57	79	0.73	0.11	0.81
12	23-24	0.61	91	0.74	0.12	0.83
12	24-25	0.59	85	0.74	0.10	0.82
12	25-26	0.63	95	0.75	0.13	0.83
12	26-27	0.62	49	0.76	0.10	0.84
12	27-28	0.58	62	0.75	0.09	0.83

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	28-29	0.60	80	0.75	0.10	0.83
12	29-30	0.63	100	0.76	0.11	0.84
12	30-31	0.63	66	0.76	0.10	0.85
12	31-32	0.60	45	0.78	0.05	0.85
12	32-33	0.60	44	0.76	0.08	0.85
12	33-34	0.55	7	0.77	0.00	0.92
12	34-35	0.59	57	0.77	0.04	0.86
12	35-36	0.58	10	0.79	0.00	0.95
12	36-37	0.65	9	0.83	0.00	0.96
12	37-38	0.74	11	0.87	0.00	0.96
12	38-39	0.66	2	0.83	0.00	0.94
12	39-40	0.68	5	0.84	0.00	0.95
12	40-41	0.77	11	0.89	0.00	0.96
12	41-42	0.71	4	0.86	0.00	0.95
12	42-43	0.71	2	0.85	0.00	0.95
12	43-44	0.75	7	0.87	0.00	0.96
12	44-45	0.81	10	0.91	0.00	0.97
12	45-46	0.82	7	0.91	0.00	0.97
12	46-47	0.75	7	0.88	0.00	0.97
12	47-48	0.77	9	0.89	0.00	0.97
12	48-49	0.78	5	0.89	0.00	0.97
12	49-50	0.84	17	0.92	0.00	0.98
12	50-51	0.85	5	0.93	0.00	0.97
12	51-52	0.87	12	0.93	0.00	0.98
12	52-53	0.84	13	0.92	0.00	0.98
12	53-54	0.85	2	0.92	0.00	0.97

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	54-55	0.86	7	0.93	0.00	0.98
12	55-56	0.86	4	0.93	0.00	0.97
12	56-57	0.85	5	0.93	0.00	0.97
12	57-58	0.86	4	0.93	0.00	0.98
12	58-59	0.85	3	0.92	0.00	0.98
12	59-60	0.85	2	0.93	0.00	0.98
12	60-61	0.86	1	0.93	0.00	0.99
12	61-62	0.86	3	0.93	0.00	0.98
12	62-63	0.89	6	0.94	0.00	0.99
12	63-64	0.88	5	0.94	0.00	0.99
12	64-65	0.91	11	0.95	0.00	0.99
12	65-66	0.90	9	0.95	0.00	0.99
12	66-67	0.90	17	0.95	0.00	0.99
12	67-68	0.90	14	0.95	0.00	0.99
12	68-69	0.88	7	0.94	0.00	0.99
12	69-70	0.88	11	0.94	0.00	0.99
12	70-71	0.88	6	0.94	0.00	0.99
12	71-72	0.89	5	0.94	0.00	0.99
12	72-73	0.91	6	0.95	0.00	0.99
12	73-74	0.91	10	0.95	0.00	1.00
12	74-75	0.91	7	0.95	0.00	1.00
12	75-76	0.93	7	0.97	0.00	0.99
12	76-77	0.93	8	0.96	0.00	0.99
12	77-78	0.93	6	0.96	0.00	0.99
12	78-79	0.90	4	0.95	0.00	0.99
12	79-80	0.93	6	0.97	0.00	0.99

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	80-81	0.94	9	0.97	0.00	0.99
12	81-82	0.93	15	0.96	0.00	1.00
12	82-83	0.93	1	0.97	0.00	1.00
12	83-84	0.92	11	0.96	0.00	0.99
12	84-85	0.93	17	0.97	0.00	1.00
12	85-86	0.93	13	0.97	0.00	1.00
12	86-87	0.93	16	0.96	0.00	1.00
12	87-88	0.93	1	0.96	0.00	1.00
12	88-89	0.93	3	0.97	0.00	0.99
12	89-90	0.93	5	0.96	0.00	0.99
12	90-91	0.93	4	0.97	0.00	0.99
12	91-92	0.93	9	0.96	0.00	1.00
12	92-93	0.92	14	0.96	0.00	1.00
12	93-94	0.94	5	0.97	0.00	0.99
12	94-95	0.94	7	0.97	0.00	0.99
12	95-96	0.93	13	0.96	0.00	1.00
12	96-97	0.93	4	0.96	0.00	0.99
12	97-98	0.94	12	0.97	0.00	1.00
12	98-99	0.93	16	0.97	0.00	1.00
12	99-100	0.93	7	0.96	0.00	1.00
12	100-101	0.94	7	0.97	0.00	1.00
12	101-102	0.94	9	0.97	0.00	1.00
12	102-103	0.94	15	0.97	0.00	1.00
12	103-104	0.93	8	0.96	0.00	0.99
12	104-105	0.92	13	0.96	0.00	1.00
12	105-106	0.94	1	0.97	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	106-107	0.93	6	0.97	0.00	1.00
12	107-108	0.95	6	0.98	0.00	1.00
12	108-109	0.96	9	0.98	0.00	1.00
12	109-110	0.94	14	0.97	0.00	1.00
12	110-111	0.97	14	0.98	0.00	1.00
12	111-112	0.97	15	0.98	0.00	1.00
12	112-113	0.97	3	0.99	0.00	1.00
12	113-114	0.98	15	0.99	0.00	1.00
12	114-115	0.98	16	0.99	0.00	1.00
12	115-116	0.97	7	0.99	0.00	1.00
12	116-117	0.98	9	0.99	0.00	1.00
12	117-118	0.98	10	0.99	0.00	1.00
12	118-119	0.98	8	0.99	0.00	1.00
12	119-120	0.99	9	1.00	0.00	1.00
13	2-3	0.86	252	0.61	0.65	0.67
13	3-4	0.89	123	0.54	0.80	0.55
13	4-5	0.60	279	0.54	0.53	0.54
13	5-6	0.71	55	0.68	0.36	0.72
13	6-7	0.57	30	0.53	0.53	0.64
13	7-8	0.73	21	0.71	0.31	0.76
13	8-9	0.59	31	0.50	0.60	0.60
13	9-10	0.79	43	0.49	0.80	0.50
13	10-11	0.82	9	0.80	0.23	0.87
13	11-12	0.84	37	0.83	0.18	0.90
13	12-13	0.81	24	0.80	0.21	0.89
13	13-14	0.82	21	0.83	0.16	0.90

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	14-15	0.81	46	0.82	0.17	0.90
13	15-16	0.81	25	0.82	0.17	0.91
13	16-17	0.80	23	0.83	0.15	0.91
13	17-18	0.82	38	0.83	0.16	0.90
13	18-19	0.80	56	0.81	0.19	0.89
13	19-20	0.78	33	0.79	0.19	0.87
13	20-21	0.77	40	0.77	0.22	0.87
13	21-22	0.79	27	0.79	0.20	0.88
13	22-23	0.81	48	0.82	0.16	0.89
13	23-24	0.76	44	0.78	0.21	0.86
13	24-25	0.77	46	0.79	0.18	0.87
13	25-26	0.78	37	0.81	0.16	0.89
13	26-27	0.77	29	0.81	0.14	0.88
13	27-28	0.81	47	0.82	0.16	0.90
13	28-29	0.78	45	0.81	0.16	0.89
13	29-30	0.75	49	0.77	0.20	0.85
13	30-31	0.72	48	0.75	0.22	0.82
13	31-32	0.73	86	0.77	0.20	0.83
13	32-33	0.77	90	0.79	0.18	0.87
13	33-34	0.76	41	0.78	0.20	0.85
13	34-35	0.75	34	0.78	0.19	0.86
13	35-36	0.76	43	0.78	0.19	0.86
13	36-37	0.78	63	0.80	0.17	0.88
13	37-38	0.75	59	0.82	0.12	0.87
13	38-39	0.74	46	0.81	0.12	0.86
13	39-40	0.77	71	0.81	0.15	0.88

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	40-41	0.75	153	0.77	0.21	0.83
13	41-42	0.77	57	0.81	0.15	0.88
13	42-43	0.78	43	0.79	0.20	0.87
13	43-44	0.79	32	0.81	0.17	0.88
13	44-45	0.73	26	0.81	0.12	0.87
13	45-46	0.76	53	0.80	0.16	0.86
13	46-47	0.77	99	0.81	0.16	0.87
13	47-48	0.78	27	0.84	0.09	0.90
13	48-49	0.78	35	0.82	0.14	0.89
13	49-50	0.73	21	0.81	0.11	0.87
13	50-51	0.70	38	0.79	0.13	0.84
13	51-52	0.71	43	0.79	0.13	0.85
13	52-53	0.72	21	0.81	0.10	0.87
13	53-54	0.67	25	0.79	0.08	0.86
13	54-55	0.73	22	0.80	0.14	0.86
13	55-56	0.74	88	0.79	0.15	0.86
13	56-57	0.75	6	0.82	0.11	0.89
13	57-58	0.77	62	0.80	0.17	0.87
13	58-59	0.76	42	0.82	0.11	0.88
13	59-60	0.74	43	0.77	0.20	0.84
13	60-61	0.77	58	0.79	0.18	0.87
13	61-62	0.76	18	0.82	0.11	0.89
13	62-63	0.73	86	0.78	0.16	0.85
13	63-64	0.74	19	0.82	0.10	0.88
13	64-65	0.72	99	0.75	0.21	0.83
13	65-66	0.68	53	0.79	0.10	0.86

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	66-67	0.67	4	0.82	0.03	0.88
13	67-68	0.62	4	0.80	0.02	0.88
13	68-69	0.62	4	0.81	0.01	0.89
13	69-70	0.63	4	0.81	0.01	0.89
13	70-71	0.65	4	0.82	0.01	0.89
13	71-72	0.61	2	0.80	0.01	0.89
13	72-73	0.57	4	0.78	0.00	0.89
13	73-74	0.57	119	0.76	0.04	0.83
13	74-75	0.60	3	0.79	0.03	0.88
13	75-76	0.66	3	0.81	0.03	0.88
13	76-77	0.66	4	0.82	0.03	0.89
13	77-78	0.66	4	0.82	0.01	0.89
13	78-79	0.62	4	0.80	0.01	0.90
13	79-80	0.62	4	0.80	0.01	0.89
13	80-81	0.68	4	0.83	0.02	0.91
13	81-82	0.66	3	0.81	0.04	0.89
13	82-83	0.65	3	0.82	0.02	0.89
13	83-84	0.67	4	0.82	0.02	0.90
13	84-85	0.54	4	0.77	0.00	0.89
13	85-86	0.68	4	0.83	0.02	0.90
13	86-87	0.64	3	0.81	0.02	0.90
13	87-88	0.69	4	0.84	0.02	0.91
13	88-89	0.67	4	0.82	0.02	0.90
13	89-90	0.57	4	0.78	0.00	0.90
13	90-91	0.58	4	0.79	0.00	0.91
13	91-92	0.65	5	0.81	0.02	0.90

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	92-93	0.53	3	0.76	0.00	0.88
13	93-94	0.50	5	0.75	0.00	0.88
13	94-95	0.68	3	0.83	0.02	0.90
13	95-96	0.64	3	0.81	0.01	0.89
13	96-97	0.62	2	0.81	0.00	0.90
13	97-98	0.66	2	0.82	0.02	0.89
13	98-99	0.60	3	0.80	0.01	0.89
13	99-100	0.63	4	0.81	0.00	0.91
13	100-101	0.69	4	0.84	0.01	0.90
13	101-102	0.67	3	0.83	0.01	0.90
13	102-103	0.69	3	0.83	0.03	0.90
13	103-104	0.69	3	0.84	0.02	0.90
13	104-105	0.65	4	0.82	0.01	0.91
13	105-106	0.63	4	0.81	0.01	0.90
13	106-107	0.68	3	0.83	0.02	0.90
13	107-108	0.68	4	0.83	0.02	0.90
13	108-109	0.70	3	0.84	0.02	0.90
13	109-110	0.71	4	0.85	0.02	0.92
13	110-111	0.72	17	0.85	0.02	0.92
13	111-112	0.70	3	0.84	0.03	0.91
13	112-113	0.70	3	0.84	0.01	0.91
13	113-114	0.74	4	0.85	0.04	0.91
13	114-115	0.72	7	0.85	0.02	0.91
13	115-116	0.79	18	0.85	0.08	0.91
13	116-117	0.75	9	0.85	0.04	0.92
13	117-118	0.70	4	0.84	0.01	0.91

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	118-119	0.73	13	0.84	0.04	0.91
13	119-120	0.70	3	0.84	0.02	0.90
14	2-3	0.71	3	0.71	0.29	0.77
14	3-4	0.50	22	0.46	0.58	0.46
14	4-5	0.82	1	0.63	0.56	0.67
14	5-6	0.91	9	0.52	0.96	1.00
14	6-7	0.65	2	0.49	0.72	0.94
14	7-8	0.70	1	0.49	0.71	0.72
14	8-9	0.70	55	0.67	0.36	0.74
14	9-10	0.76	9	0.73	0.30	0.78
14	10-11	0.77	33	0.77	0.23	0.86
14	11-12	0.87	15	0.86	0.15	0.93
14	12-13	0.87	20	0.87	0.14	0.94
14	13-14	0.88	52	0.87	0.14	0.95
14	14-15	0.91	40	0.89	0.13	0.96
14	15-16	0.86	44	0.87	0.12	0.95
14	16-17	0.91	29	0.91	0.08	0.97
14	17-18	0.90	32	0.92	0.07	0.97
14	18-19	0.83	22	0.88	0.07	0.95
14	19-20	0.84	47	0.87	0.11	0.94
14	20-21	0.83	22	0.88	0.07	0.95
14	21-22	0.87	41	0.88	0.11	0.95
14	22-23	0.81	20	0.84	0.14	0.91
14	23-24	0.80	7	0.85	0.09	0.92
14	24-25	0.81	19	0.85	0.10	0.92
14	25-26	0.82	23	0.84	0.15	0.91

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	26-27	0.83	36	0.85	0.13	0.92
14	27-28	0.81	7	0.85	0.12	0.92
14	28-29	0.83	16	0.85	0.14	0.92
14	29-30	0.83	28	0.85	0.13	0.93
14	30-31	0.83	39	0.85	0.12	0.93
14	31-32	0.82	12	0.87	0.09	0.93
14	32-33	0.83	29	0.86	0.11	0.93
14	33-34	0.87	35	0.89	0.10	0.94
14	34-35	0.83	7	0.88	0.07	0.93
14	35-36	0.84	69	0.85	0.13	0.92
14	36-37	0.84	58	0.86	0.11	0.93
14	37-38	0.83	32	0.86	0.10	0.93
14	38-39	0.82	45	0.85	0.12	0.91
14	39-40	0.81	32	0.87	0.08	0.92
14	40-41	0.84	82	0.86	0.12	0.92
14	41-42	0.84	31	0.86	0.12	0.93
14	42-43	0.83	38	0.88	0.07	0.93
14	43-44	0.87	42	0.89	0.09	0.94
14	44-45	0.82	5	0.88	0.05	0.94
14	45-46	0.82	30	0.88	0.07	0.93
14	46-47	0.81	35	0.87	0.08	0.92
14	47-48	0.83	44	0.88	0.07	0.93
14	48-49	0.82	6	0.88	0.06	0.93
14	49-50	0.83	40	0.89	0.05	0.93
14	50-51	0.86	30	0.89	0.07	0.94
14	51-52	0.82	5	0.90	0.02	0.94

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	52-53	0.81	6	0.88	0.05	0.93
14	53-54	0.83	7	0.88	0.07	0.94
14	54-55	0.83	5	0.90	0.04	0.94
14	55-56	0.81	12	0.85	0.10	0.91
14	56-57	0.80	4	0.88	0.05	0.93
14	57-58	0.84	4	0.90	0.03	0.95
14	58-59	0.82	9	0.89	0.04	0.93
14	59-60	0.84	17	0.86	0.12	0.92
14	60-61	0.85	10	0.90	0.05	0.94
14	61-62	0.84	25	0.89	0.07	0.94
14	62-63	0.83	21	0.87	0.08	0.93
14	63-64	0.83	4	0.90	0.04	0.95
14	64-65	0.83	12	0.88	0.06	0.93
14	65-66	0.84	6	0.89	0.06	0.94
14	66-67	0.84	4	0.90	0.04	0.95
14	67-68	0.84	3	0.90	0.05	0.94
14	68-69	0.84	5	0.90	0.04	0.95
14	69-70	0.82	8	0.89	0.05	0.93
14	70-71	0.82	3	0.89	0.03	0.93
14	71-72	0.82	3	0.89	0.04	0.94
14	72-73	0.81	4	0.89	0.03	0.94
14	73-74	0.82	3	0.89	0.05	0.94
14	74-75	0.82	4	0.89	0.04	0.93
14	75-76	0.83	7	0.89	0.06	0.94
14	76-77	0.85	5	0.91	0.04	0.95
14	77-78	0.83	4	0.90	0.03	0.95

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	78-79	0.82	6	0.90	0.02	0.94
14	79-80	0.82	6	0.89	0.04	0.93
14	80-81	0.83	4	0.90	0.02	0.94
14	81-82	0.84	4	0.90	0.03	0.95
14	82-83	0.83	5	0.89	0.05	0.94
14	83-84	0.84	22	0.89	0.06	0.94
14	84-85	0.85	8	0.90	0.04	0.95
14	85-86	0.85	4	0.90	0.04	0.95
14	86-87	0.82	4	0.90	0.02	0.95
14	87-88	0.84	9	0.90	0.04	0.94
14	88-89	0.81	3	0.88	0.04	0.95
14	89-90	0.77	4	0.88	0.01	0.93
14	90-91	0.79	3	0.89	0.02	0.94
14	91-92	0.80	3	0.89	0.02	0.93
14	92-93	0.82	5	0.89	0.03	0.94
14	93-94	0.83	4	0.90	0.02	0.95
14	94-95	0.83	3	0.90	0.03	0.95
14	95-96	0.83	4	0.90	0.02	0.95
14	96-97	0.86	12	0.91	0.04	0.95
14	97-98	0.85	12	0.89	0.06	0.94
14	98-99	0.81	4	0.90	0.01	0.94
14	99-100	0.78	4	0.89	0.01	0.94
14	100-101	0.81	3	0.89	0.03	0.94
14	101-102	0.81	4	0.90	0.01	0.94
14	102-103	0.82	4	0.90	0.02	0.94
14	103-104	0.82	4	0.91	0.01	0.95

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	104-105	0.82	4	0.90	0.02	0.95
14	105-106	0.83	28	0.88	0.07	0.94
14	106-107	0.85	4	0.91	0.04	0.96
14	107-108	0.86	22	0.90	0.06	0.95
14	108-109	0.86	24	0.90	0.07	0.95
14	109-110	0.86	6	0.90	0.05	0.96
14	110-111	0.88	35	0.90	0.09	0.96
14	111-112	0.89	14	0.91	0.06	0.96
14	112-113	0.89	24	0.91	0.07	0.97
14	113-114	0.87	34	0.91	0.06	0.96
14	114-115	0.87	4	0.91	0.04	0.96
14	115-116	0.87	9	0.91	0.06	0.96
14	116-117	0.88	4	0.92	0.05	0.96
14	117-118	0.88	4	0.92	0.05	0.97
14	118-119	0.87	17	0.91	0.06	0.96
14	119-120	0.87	23	0.91	0.06	0.96
15	2-3	0.73	26	0.50	0.72	0.59
15	3-4	0.92	13	0.56	0.80	0.59
15	4-5	0.81	13	0.50	0.98	0.98
15	5-6	0.77	26	0.76	0.26	0.84
15	6-7	0.68	131	0.63	0.41	0.70
15	7-8	0.74	29	0.72	0.29	0.79
15	8-9	0.62	9	0.60	0.41	0.65
15	9-10	0.78	7	0.68	0.42	0.72
15	10-11	0.77	40	0.68	0.40	0.73
15	11-12	0.66	156	0.63	0.40	0.67

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	12-13	0.72	36	0.71	0.31	0.77
15	13-14	0.61	164	0.61	0.40	0.67
15	14-15	0.59	134	0.60	0.40	0.65
15	15-16	0.63	153	0.61	0.42	0.66
15	16-17	0.70	11	0.64	0.41	0.68
15	17-18	0.66	65	0.66	0.33	0.72
15	18-19	0.61	73	0.59	0.43	0.63
15	19-20	0.57	204	0.58	0.41	0.61
15	20-21	0.65	271	0.58	0.49	0.61
15	21-22	0.69	48	0.68	0.33	0.74
15	22-23	0.80	39	0.80	0.20	0.88
15	23-24	0.81	52	0.84	0.13	0.91
15	24-25	0.79	19	0.86	0.06	0.93
15	25-26	0.79	42	0.85	0.08	0.93
15	26-27	0.86	33	0.89	0.09	0.96
15	27-28	0.82	71	0.87	0.08	0.94
15	28-29	0.89	30	0.92	0.05	0.97
15	29-30	0.87	60	0.90	0.07	0.96
15	30-31	0.90	39	0.92	0.05	0.98
15	31-32	0.92	40	0.93	0.06	0.98
15	32-33	0.90	23	0.94	0.03	0.98
15	33-34	0.93	6	0.95	0.03	0.98
15	34-35	0.92	39	0.94	0.04	0.98
15	35-36	0.90	26	0.94	0.02	0.99
15	36-37	0.91	37	0.94	0.02	0.99
15	37-38	0.93	36	0.95	0.03	0.99

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	38-39	0.91	30	0.95	0.01	0.99
15	39-40	0.94	58	0.96	0.02	0.99
15	40-41	0.93	28	0.96	0.01	1.00
15	41-42	0.94	47	0.96	0.02	0.99
15	42-43	0.97	33	0.98	0.02	1.00
15	43-44	0.97	40	0.98	0.01	1.00
15	44-45	0.94	5	0.96	0.02	0.99
15	45-46	0.97	104	0.98	0.01	1.00
15	46-47	0.98	77	0.98	0.01	1.00
15	47-48	0.94	10	0.97	0.01	0.99
15	48-49	0.97	41	0.98	0.00	1.00
15	49-50	0.96	74	0.98	0.00	1.00
15	50-51	0.98	52	0.99	0.00	1.00
15	51-52	1.00	93	1.00	0.00	1.00
15	52-53	0.99	51	0.99	0.00	1.00
15	53-54	0.99	66	1.00	0.00	1.00
15	54-55	0.99	111	0.99	0.00	1.00
15	55-56	0.99	98	0.99	0.00	1.00
15	56-57	0.99	40	0.99	0.00	1.00
15	57-58	1.00	60	1.00	0.00	1.00
15	58-59	0.99	25	1.00	0.00	1.00
15	59-60	0.99	57	1.00	0.00	1.00
15	60-61	0.99	125	0.99	0.00	1.00
15	61-62	1.00	64	1.00	0.00	1.00
15	62-63	0.99	26	1.00	0.00	1.00
15	63-64	1.00	97	1.00	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	64-65	0.99	152	1.00	0.00	1.00
15	65-66	0.99	147	0.99	0.00	1.00
15	66-67	1.00	95	1.00	0.00	1.00
15	67-68	1.00	124	1.00	0.00	1.00
15	68-69	1.00	135	1.00	0.00	1.00
15	69-70	1.00	76	1.00	0.00	1.00
15	70-71	0.99	44	1.00	0.00	1.00
15	71-72	0.98	82	0.99	0.00	1.00
15	72-73	0.99	50	1.00	0.00	1.00
15	73-74	0.99	67	0.99	0.00	1.00
15	74-75	0.99	22	1.00	0.00	1.00
15	75-76	0.99	146	1.00	0.00	1.00
15	76-77	0.99	131	1.00	0.00	1.00
15	77-78	0.99	110	0.99	0.00	1.00
15	78-79	0.99	134	1.00	0.00	1.00
15	79-80	0.99	72	1.00	0.00	1.00
15	80-81	1.00	34	1.00	0.00	1.00
15	81-82	1.00	63	1.00	0.00	1.00
15	82-83	0.99	101	1.00	0.00	1.00
15	83-84	0.99	76	0.99	0.00	1.00
15	84-85	1.00	65	1.00	0.00	1.00
15	85-86	1.00	130	1.00	0.00	1.00
15	86-87	1.00	14	1.00	0.00	1.00
15	87-88	0.99	8	1.00	0.00	1.00
15	88-89	0.99	74	1.00	0.00	1.00
15	89-90	1.00	88	1.00	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	90-91	0.99	72	1.00	0.00	1.00
15	91-92	0.99	76	1.00	0.00	1.00
15	92-93	0.99	166	1.00	0.00	1.00
15	93-94	0.99	28	1.00	0.00	1.00
15	94-95	0.99	81	1.00	0.00	1.00
15	95-96	0.99	88	1.00	0.00	1.00
15	96-97	0.99	178	1.00	0.00	1.00
15	97-98	0.99	70	1.00	0.00	1.00
15	98-99	0.99	54	0.99	0.00	1.00
15	99-100	1.00	77	1.00	0.00	1.00
15	100-101	0.99	85	1.00	0.00	1.00
15	101-102	0.99	143	1.00	0.00	1.00
15	102-103	0.99	88	1.00	0.00	1.00
15	103-104	0.99	88	1.00	0.00	1.00
15	104-105	0.99	127	1.00	0.00	1.00
15	105-106	0.99	63	1.00	0.00	1.00
15	106-107	0.99	71	1.00	0.00	1.00
15	107-108	1.00	174	1.00	0.00	1.00
15	108-109	1.00	84	1.00	0.00	1.00
15	109-110	1.00	65	1.00	0.00	1.00
15	110-111	1.00	86	1.00	0.00	1.00
15	111-112	1.00	202	1.00	0.00	1.00
15	112-113	1.00	81	1.00	0.00	1.00
15	113-114	1.00	119	1.00	0.00	1.00
15	114-115	1.00	95	1.00	0.00	1.00
15	115-116	1.00	122	1.00	0.00	1.00

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Table S2 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	116-117	1.00	143	1.00	0.00	1.00
15	117-118	1.00	86	1.00	0.00	1.00
15	118-119	1.00	139	1.00	0.00	1.00
15	119-120	1.00	145	1.00	0.00	1.00

Table S3: Fault & Time-specific Model Performances with respect to the Evolving Time Horizon Approach. The alternative models can be provided upon request.

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	2	0.65	8	0.59	0.47	0.65
1	3	0.58	43	0.59	0.40	0.63
1	4	0.78	70	0.72	0.34	0.78
1	5	0.83	61	0.78	0.28	0.85
1	6	0.95	4	0.53	0.89	0.95
1	7	0.84	58	0.72	0.41	0.79
1	8	0.99	1	0.52	0.94	0.97
1	9	0.78	55	0.74	0.31	0.81
1	10	0.78	73	0.73	0.31	0.81
1	11	0.74	171	0.59	0.55	0.67
1	12	0.76	40	0.70	0.35	0.77
1	13	0.72	109	0.68	0.36	0.74
1	14	0.68	433	0.54	0.64	0.54
1	15	0.74	31	0.69	0.36	0.75
1	16	0.61	11	0.54	0.54	0.56
1	17	0.75	59	0.69	0.36	0.75
1	18	0.65	403	0.52	0.63	0.53

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	19	0.63	517	0.54	0.57	0.55
1	20	0.82	1	0.55	0.72	0.57
1	21	0.75	62	0.69	0.37	0.75
1	22	0.99	3	0.51	0.99	1.00
1	23	0.96	3	0.50	0.99	1.00
1	24	0.92	1	0.50	0.99	1.00
1	25	0.81	511	0.60	0.61	0.65
1	26	0.81	513	0.62	0.57	0.66
1	27	0.82	498	0.62	0.59	0.67
1	28	0.81	583	0.61	0.60	0.66
1	29	0.82	563	0.62	0.59	0.67
1	30	0.76	172	0.80	0.16	0.89
1	31	0.76	117	0.80	0.15	0.89
1	32	0.75	153	0.80	0.16	0.89
1	33	0.76	148	0.81	0.15	0.89
1	34	0.75	165	0.81	0.14	0.89
1	35	0.72	160	0.78	0.16	0.87
1	36	0.74	147	0.80	0.14	0.89
1	37	0.75	194	0.81	0.13	0.90
1	38	0.75	159	0.81	0.14	0.89
1	39	0.75	187	0.81	0.13	0.90
1	40	0.73	181	0.81	0.12	0.90
1	41	0.74	188	0.82	0.11	0.90
1	42	0.73	177	0.81	0.11	0.90
1	43	0.73	221	0.80	0.12	0.89
1	44	0.73	223	0.82	0.10	0.89

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	45	0.66	191	0.80	0.06	0.89
1	46	0.73	250	0.81	0.10	0.89
1	47	0.73	232	0.82	0.10	0.89
1	48	0.74	217	0.82	0.09	0.90
1	49	0.74	243	0.82	0.09	0.90
1	50	0.73	259	0.81	0.10	0.89
1	51	0.73	247	0.82	0.09	0.90
1	52	0.73	285	0.82	0.09	0.90
1	53	0.73	260	0.82	0.10	0.89
1	54	0.73	11	0.87	0.00	0.94
1	55	0.73	309	0.82	0.10	0.90
1	56	0.73	321	0.81	0.11	0.90
1	57	0.74	31	0.87	0.00	0.94
1	58	0.73	39	0.87	0.00	0.94
1	59	0.74	318	0.82	0.10	0.91
1	60	0.74	431	0.83	0.08	0.91
1	61	0.74	337	0.83	0.09	0.91
1	62	0.74	338	0.83	0.09	0.91
1	63	0.75	401	0.84	0.08	0.92
1	64	0.75	359	0.84	0.08	0.91
1	65	0.75	351	0.83	0.08	0.92
1	66	0.76	380	0.84	0.08	0.92
1	67	0.76	418	0.84	0.08	0.92
1	68	0.75	448	0.83	0.08	0.92
1	69	0.75	405	0.84	0.08	0.92
1	70	0.76	424	0.84	0.08	0.92

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	71	0.76	435	0.85	0.06	0.92
1	72	0.76	441	0.84	0.07	0.92
1	73	0.74	445	0.84	0.07	0.92
1	74	0.75	451	0.84	0.07	0.92
1	75	0.77	494	0.85	0.07	0.93
1	76	0.77	502	0.85	0.06	0.93
1	77	0.76	497	0.85	0.06	0.93
1	78	0.77	521	0.85	0.06	0.93
1	79	0.77	561	0.86	0.06	0.94
1	80	0.77	519	0.86	0.06	0.94
1	81	0.77	510	0.86	0.05	0.93
1	82	0.78	540	0.86	0.06	0.93
1	83	0.78	524	0.86	0.06	0.94
1	84	0.78	572	0.87	0.05	0.94
1	85	0.78	544	0.85	0.07	0.93
1	86	0.78	561	0.86	0.06	0.94
1	87	0.78	626	0.86	0.06	0.94
1	88	0.77	637	0.86	0.05	0.94
1	89	0.77	657	0.86	0.06	0.93
1	90	0.78	622	0.86	0.06	0.94
1	91	0.77	638	0.86	0.05	0.94
1	92	0.77	690	0.85	0.06	0.93
1	93	0.77	641	0.86	0.06	0.93
1	94	0.78	618	0.86	0.05	0.94
1	95	0.77	678	0.85	0.06	0.93
1	96	0.78	720	0.86	0.05	0.94

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
1	97	0.78	646	0.87	0.05	0.94
1	98	0.77	740	0.86	0.05	0.94
1	99	0.77	782	0.86	0.06	0.94
1	100	0.78	879	0.86	0.05	0.94
1	101	0.78	754	0.86	0.05	0.94
1	102	0.77	760	0.86	0.05	0.94
1	103	0.78	822	0.86	0.05	0.94
1	104	0.77	659	0.86	0.04	0.94
1	105	0.78	763	0.86	0.05	0.94
1	106	0.77	761	0.86	0.06	0.94
1	107	0.78	706	0.87	0.05	0.94
1	108	0.77	837	0.87	0.04	0.94
1	109	0.79	799	0.87	0.05	0.95
1	110	0.79	870	0.88	0.04	0.95
1	111	0.78	891	0.87	0.04	0.95
1	112	0.78	801	0.87	0.05	0.94
1	113	0.81	800	0.87	0.07	0.94
1	114	0.79	836	0.87	0.04	0.95
1	115	0.79	920	0.87	0.04	0.95
1	116	0.79	978	0.87	0.04	0.95
1	117	0.79	856	0.88	0.04	0.95
1	118	0.79	834	0.87	0.04	0.95
1	119	0.79	983	0.88	0.04	0.95
1	120	0.78	896	0.87	0.04	0.94
2	2	0.81	29	0.79	0.24	0.88
2	3	0.52	1	0.51	0.50	0.50

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	4	0.70	16	0.52	0.66	0.63
2	5	0.62	48	0.49	0.63	0.56
2	6	0.77	12	0.49	0.78	0.92
2	7	0.56	131	0.54	0.48	0.57
2	8	0.66	321	0.56	0.59	0.56
2	9	0.55	401	0.52	0.50	0.52
2	10	0.81	8	0.50	0.81	0.88
2	11	0.74	9	0.50	0.75	0.94
2	12	0.60	452	0.54	0.52	0.55
2	13	0.97	133	0.50	0.98	0.70
2	14	0.71	36	0.69	0.33	0.74
2	15	0.73	121	0.71	0.31	0.78
2	16	0.92	5	0.51	0.91	0.95
2	17	0.68	5	0.50	0.67	0.53
2	18	0.67	679	0.54	0.60	0.55
2	19	0.84	5	0.50	0.97	0.99
2	20	0.69	405	0.60	0.50	0.65
2	21	0.76	130	0.77	0.22	0.85
2	22	0.77	182	0.77	0.23	0.85
2	23	0.78	3	0.50	0.81	0.98
2	24	0.85	6	0.50	0.86	0.98
2	25	0.79	96	0.79	0.21	0.87
2	26	0.82	566	0.61	0.60	0.64
2	27	0.77	219	0.79	0.20	0.88
2	28	0.82	608	0.60	0.61	0.64
2	29	0.80	583	0.61	0.58	0.64

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	30	0.77	235	0.58	0.61	0.61
2	31	0.79	650	0.61	0.57	0.65
2	32	0.93	550	0.53	0.88	0.62
2	33	0.94	600	0.52	0.89	0.60
2	34	0.95	748	0.52	0.91	0.60
2	35	0.95	510	0.53	0.88	0.61
2	36	0.78	744	0.61	0.57	0.65
2	37	0.76	104	0.80	0.16	0.89
2	38	0.97	701	0.52	0.93	0.62
2	39	0.77	137	0.81	0.15	0.89
2	40	0.76	151	0.80	0.15	0.89
2	41	0.75	132	0.80	0.15	0.89
2	42	0.76	120	0.82	0.13	0.90
2	43	0.74	137	0.79	0.16	0.88
2	44	0.75	118	0.81	0.13	0.89
2	45	0.75	154	0.81	0.13	0.89
2	46	0.74	117	0.81	0.13	0.88
2	47	0.74	123	0.80	0.14	0.88
2	48	0.74	115	0.81	0.13	0.89
2	49	0.75	98	0.81	0.14	0.89
2	50	0.73	104	0.80	0.13	0.88
2	51	0.72	94	0.79	0.13	0.87
2	52	0.73	97	0.80	0.12	0.88
2	53	0.72	115	0.79	0.13	0.87
2	54	0.72	106	0.80	0.13	0.87
2	55	0.71	427	0.79	0.14	0.87

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	56	0.97	7	0.51	0.94	0.95
2	57	0.72	390	0.79	0.14	0.87
2	58	0.97	1613	0.51	0.95	0.56
2	59	0.73	102	0.81	0.11	0.89
2	60	0.95	1450	0.52	0.91	0.60
2	61	0.72	5	0.86	0.01	0.93
2	62	0.73	15	0.86	0.00	0.94
2	63	0.72	107	0.81	0.10	0.89
2	64	0.74	13	0.87	0.00	0.94
2	65	0.77	287	0.83	0.12	0.90
2	66	0.75	2	0.87	0.00	0.95
2	67	0.76	6	0.88	0.00	0.96
2	68	0.75	3	0.88	0.00	0.96
2	69	0.75	6	0.87	0.00	0.96
2	70	0.78	338	0.84	0.10	0.92
2	71	0.77	396	0.83	0.11	0.91
2	72	0.98	1222	0.52	0.94	0.60
2	73	0.77	274	0.82	0.13	0.90
2	74	0.77	505	0.83	0.10	0.91
2	75	0.96	1503	0.52	0.91	0.61
2	76	0.97	1585	0.51	0.95	0.58
2	77	0.99	1152	0.51	0.98	0.58
2	78	0.78	355	0.83	0.12	0.92
2	79	0.76	29	0.88	0.00	0.98
2	80	0.97	1594	0.51	0.95	0.58
2	81	0.77	3	0.89	0.00	0.98

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	82	0.78	250	0.84	0.11	0.91
2	83	0.75	23	0.88	0.00	0.98
2	84	0.79	356	0.85	0.10	0.93
2	85	0.76	3	0.88	0.00	0.98
2	86	0.78	5	0.89	0.00	0.99
2	87	0.97	1511	0.53	0.91	0.62
2	88	0.97	1783	0.53	0.92	0.62
2	89	0.77	5	0.89	0.00	0.99
2	90	0.97	1549	0.52	0.93	0.63
2	91	0.76	29	0.88	0.00	0.98
2	92	0.76	4	0.88	0.00	0.98
2	93	0.77	5	0.89	0.00	0.99
2	94	0.76	32	0.88	0.00	0.98
2	95	0.96	1877	0.54	0.88	0.62
2	96	0.97	2011	0.52	0.92	0.62
2	97	0.78	339	0.84	0.11	0.92
2	98	0.75	2	0.88	0.00	0.98
2	99	0.76	5	0.88	0.00	0.98
2	100	0.77	4	0.89	0.00	0.99
2	101	0.98	2121	0.51	0.95	0.57
2	102	0.75	3	0.88	0.00	0.97
2	103	0.77	5	0.88	0.00	0.99
2	104	0.97	2047	0.51	0.95	0.58
2	105	0.98	1787	0.52	0.93	0.63
2	106	0.79	6	0.89	0.00	0.99
2	107	0.79	7	0.89	0.00	0.99

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
2	108	0.95	1668	0.53	0.90	0.62
2	109	0.79	376	0.86	0.08	0.93
2	110	0.98	1903	0.51	0.96	0.59
2	111	0.97	1986	0.52	0.94	0.62
2	112	0.97	1511	0.52	0.94	0.63
2	113	0.79	9	0.89	0.00	1.00
2	114	0.95	2278	0.52	0.91	0.62
2	115	0.99	2104	0.52	0.95	0.63
2	116	0.95	1685	0.53	0.89	0.64
2	117	0.95	1792	0.53	0.90	0.63
2	118	0.79	17	0.89	0.00	1.00
2	119	0.80	543	0.86	0.07	0.94
2	120	0.98	2146	0.53	0.92	0.62
3	2	1.00	20	1.00	0.00	1.00
3	3	0.98	29	0.98	0.01	1.00
3	4	0.95	59	0.97	0.01	0.99
3	5	0.99	3	0.99	0.00	1.00
3	6	0.94	36	0.96	0.01	1.00
3	7	0.93	52	0.96	0.02	0.99
3	8	0.92	42	0.95	0.02	0.99
3	9	0.92	4	0.96	0.00	0.99
3	10	0.95	66	0.96	0.02	0.99
3	11	0.94	44	0.96	0.02	0.99
3	12	0.98	56	0.98	0.02	1.00
3	13	0.95	60	0.97	0.01	0.99
3	14	0.95	90	0.97	0.02	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	15	0.96	84	0.97	0.01	1.00
3	16	0.90	107	0.94	0.02	0.99
3	17	0.94	63	0.96	0.01	1.00
3	18	0.91	139	0.94	0.02	0.99
3	19	0.92	10	0.96	0.00	0.99
3	20	0.95	7	0.97	0.00	1.00
3	21	0.94	11	0.97	0.00	1.00
3	22	0.94	6	0.97	0.00	0.99
3	23	0.94	12	0.97	0.00	0.99
3	24	0.93	87	0.96	0.01	1.00
3	25	0.95	119	0.97	0.01	0.99
3	26	0.96	176	0.97	0.02	1.00
3	27	0.94	97	0.97	0.01	0.99
3	28	0.96	93	0.98	0.01	1.00
3	29	0.95	73	0.98	0.00	1.00
3	30	0.95	11	0.97	0.00	0.99
3	31	0.95	20	0.98	0.00	0.99
3	32	0.98	3	0.99	0.00	1.00
3	33	0.97	7	0.98	0.00	1.00
3	34	0.96	201	0.98	0.01	1.00
3	35	0.98	6	0.99	0.00	0.99
3	36	0.98	76	0.99	0.00	1.00
3	37	0.96	94	0.98	0.00	1.00
3	38	0.95	5	0.98	0.00	0.99
3	39	0.97	14	0.99	0.00	1.00
3	40	0.97	7	0.99	0.00	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	41	0.97	4	0.98	0.00	1.00
3	42	0.98	4	0.99	0.00	1.00
3	43	0.97	19	0.99	0.00	1.00
3	44	0.98	11	0.99	0.00	1.00
3	45	0.98	10	0.99	0.00	1.00
3	46	0.99	10	0.99	0.00	1.00
3	47	0.97	9	0.99	0.00	0.99
3	48	0.98	18	0.99	0.00	1.00
3	49	0.97	15	0.98	0.00	0.99
3	50	0.97	27	0.99	0.00	1.00
3	51	0.97	18	0.98	0.00	1.00
3	52	0.97	22	0.98	0.00	1.00
3	53	0.96	9	0.98	0.00	1.00
3	54	0.96	15	0.98	0.00	0.99
3	55	0.97	24	0.98	0.00	0.99
3	56	0.97	11	0.98	0.00	1.00
3	57	0.98	9	0.99	0.00	1.00
3	58	0.97	21	0.98	0.00	1.00
3	59	0.97	17	0.98	0.00	1.00
3	60	0.96	20	0.98	0.00	1.00
3	61	0.97	8	0.98	0.00	1.00
3	62	0.97	8	0.99	0.00	1.00
3	63	0.98	9	0.99	0.00	1.00
3	64	0.98	10	0.99	0.00	1.00
3	65	0.97	21	0.99	0.00	1.00
3	66	0.98	12	0.99	0.00	0.99

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	67	0.98	18	0.99	0.00	1.00
3	68	0.97	7	0.99	0.00	0.99
3	69	0.98	21	0.99	0.00	1.00
3	70	0.97	18	0.99	0.00	1.00
3	71	0.97	22	0.99	0.00	1.00
3	72	0.97	25	0.98	0.00	1.00
3	73	0.97	23	0.99	0.00	1.00
3	74	0.98	24	0.99	0.00	1.00
3	75	0.99	4	0.99	0.00	1.00
3	76	0.98	19	0.99	0.00	1.00
3	77	0.99	18	0.99	0.00	1.00
3	78	0.98	20	0.99	0.00	1.00
3	79	0.99	6	0.99	0.00	1.00
3	80	0.97	16	0.99	0.00	1.00
3	81	0.97	25	0.99	0.00	1.00
3	82	0.98	5	0.99	0.00	1.00
3	83	0.98	19	0.99	0.00	1.00
3	84	0.99	6	0.99	0.00	1.00
3	85	0.97	12	0.99	0.00	1.00
3	86	0.98	5	0.99	0.00	1.00
3	87	0.98	6	0.99	0.00	1.00
3	88	0.99	4	0.99	0.00	1.00
3	89	0.99	20	0.99	0.00	1.00
3	90	0.97	9	0.99	0.00	1.00
3	91	0.97	27	0.98	0.00	1.00
3	92	0.99	5	0.99	0.00	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	93	0.98	6	0.99	0.00	1.00
3	94	0.98	4	0.99	0.00	1.00
3	95	0.98	18	0.99	0.00	1.00
3	96	0.99	5	0.99	0.00	1.00
3	97	0.97	29	0.99	0.00	1.00
3	98	0.98	4	0.99	0.00	1.00
3	99	0.98	5	0.99	0.00	1.00
3	100	0.98	5	0.99	0.00	1.00
3	101	0.98	8	0.99	0.00	1.00
3	102	0.99	8	0.99	0.00	1.00
3	103	0.99	5	0.99	0.00	1.00
3	104	0.99	5	0.99	0.00	1.00
3	105	0.98	21	0.99	0.00	1.00
3	106	0.98	4	0.99	0.00	1.00
3	107	0.99	10	0.99	0.00	1.00
3	108	1.00	7	1.00	0.00	1.00
3	109	0.99	13	1.00	0.00	1.00
3	110	0.99	15	1.00	0.00	1.00
3	111	0.99	12	1.00	0.00	1.00
3	112	1.00	11	1.00	0.00	1.00
3	113	1.00	8	1.00	0.00	1.00
3	114	1.00	14	1.00	0.00	1.00
3	115	1.00	17	1.00	0.00	1.00
3	116	1.00	16	1.00	0.00	1.00
3	117	1.00	14	1.00	0.00	1.00
3	118	1.00	11	1.00	0.00	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
3	119	1.00	23	1.00	0.00	1.00
3	120	1.00	6	1.00	0.00	1.00
4	2	0.76	49	0.79	0.18	0.87
4	3	0.78	49	0.79	0.20	0.87
4	4	0.83	18	0.79	0.24	0.86
4	5	0.72	100	0.72	0.28	0.81
4	6	0.78	56	0.78	0.23	0.86
4	7	0.84	43	0.84	0.17	0.91
4	8	0.90	65	0.88	0.13	0.95
4	9	0.88	58	0.88	0.13	0.95
4	10	0.88	89	0.87	0.14	0.94
4	11	0.89	101	0.90	0.09	0.97
4	12	0.88	152	0.88	0.12	0.95
4	13	0.86	96	0.87	0.12	0.94
4	14	0.89	83	0.91	0.07	0.97
4	15	0.90	37	0.92	0.05	0.98
4	16	0.91	136	0.93	0.04	0.98
4	17	0.91	126	0.94	0.03	0.99
4	18	0.92	63	0.95	0.02	0.99
4	19	0.91	199	0.93	0.04	0.98
4	20	0.92	140	0.94	0.04	0.99
4	21	0.89	60	0.94	0.01	0.98
4	22	0.91	175	0.93	0.04	0.98
4	23	0.92	97	0.94	0.03	0.99
4	24	0.93	131	0.95	0.02	0.99
4	25	0.95	87	0.96	0.02	0.99

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	26	0.93	159	0.95	0.02	0.99
4	27	0.89	124	0.93	0.02	0.99
4	28	0.94	168	0.96	0.02	0.99
4	29	0.94	133	0.96	0.02	0.99
4	30	0.93	159	0.96	0.02	0.99
4	31	0.89	122	0.94	0.01	0.99
4	32	0.92	89	0.95	0.01	0.99
4	33	0.91	193	0.94	0.02	0.99
4	34	0.89	84	0.94	0.01	0.99
4	35	0.91	188	0.95	0.02	0.99
4	36	0.89	173	0.94	0.01	0.99
4	37	0.92	151	0.95	0.01	0.99
4	38	0.92	95	0.95	0.01	0.99
4	39	0.88	96	0.94	0.00	0.99
4	40	0.88	176	0.94	0.01	0.99
4	41	0.88	153	0.94	0.00	0.98
4	42	0.89	246	0.94	0.02	0.99
4	43	0.90	242	0.94	0.01	0.99
4	44	0.87	192	0.93	0.01	0.98
4	45	0.88	147	0.93	0.01	0.99
4	46	0.88	184	0.93	0.01	0.99
4	47	0.90	118	0.95	0.00	0.99
4	48	0.91	159	0.95	0.01	0.99
4	49	0.90	169	0.95	0.01	0.99
4	50	0.91	213	0.95	0.01	0.99
4	51	0.89	149	0.94	0.00	0.99

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	52	0.88	194	0.94	0.01	0.98
4	53	0.87	132	0.94	0.00	0.99
4	54	0.87	188	0.93	0.01	0.98
4	55	0.88	232	0.93	0.01	0.98
4	56	0.88	268	0.93	0.02	0.98
4	57	0.89	199	0.94	0.01	0.99
4	58	0.89	248	0.94	0.02	0.98
4	59	0.90	197	0.94	0.01	0.99
4	60	0.89	321	0.94	0.01	0.99
4	61	0.89	146	0.94	0.01	0.99
4	62	0.88	269	0.93	0.01	0.98
4	63	0.89	316	0.94	0.02	0.98
4	64	0.91	318	0.95	0.02	0.99
4	65	0.91	270	0.95	0.02	0.99
4	66	0.89	275	0.94	0.01	0.99
4	67	0.89	220	0.94	0.01	0.98
4	68	0.90	207	0.95	0.01	0.99
4	69	0.91	277	0.94	0.02	0.99
4	70	0.88	281	0.94	0.01	0.99
4	71	0.90	480	0.94	0.02	0.99
4	72	0.91	327	0.94	0.02	0.98
4	73	0.91	476	0.94	0.03	0.98
4	74	0.90	430	0.93	0.03	0.98
4	75	0.90	266	0.94	0.02	0.98
4	76	0.90	204	0.94	0.01	0.99
4	77	0.89	339	0.94	0.01	0.99

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	78	0.90	233	0.94	0.02	0.99
4	79	0.90	306	0.94	0.02	0.98
4	80	0.91	405	0.94	0.02	0.99
4	81	0.89	289	0.94	0.02	0.98
4	82	0.90	329	0.94	0.02	0.99
4	83	0.89	309	0.94	0.02	0.98
4	84	0.90	510	0.94	0.02	0.98
4	85	0.89	543	0.93	0.02	0.98
4	86	0.89	214	0.93	0.02	0.98
4	87	0.90	297	0.94	0.01	0.98
4	88	0.89	397	0.93	0.02	0.98
4	89	0.89	310	0.94	0.02	0.98
4	90	0.90	328	0.94	0.02	0.99
4	91	0.89	507	0.93	0.02	0.98
4	92	0.90	429	0.94	0.02	0.98
4	93	0.90	277	0.94	0.03	0.98
4	94	0.90	569	0.94	0.02	0.98
4	95	0.89	203	0.94	0.01	0.99
4	96	0.89	487	0.93	0.02	0.98
4	97	0.89	356	0.93	0.03	0.98
4	98	0.90	407	0.94	0.02	0.98
4	99	0.89	435	0.93	0.02	0.98
4	100	0.89	384	0.93	0.02	0.98
4	101	0.89	470	0.93	0.02	0.98
4	102	0.89	400	0.94	0.02	0.98
4	103	0.89	393	0.94	0.02	0.99

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
4	104	0.90	386	0.94	0.02	0.98
4	105	0.89	463	0.94	0.02	0.99
4	106	0.90	555	0.94	0.02	0.99
4	107	0.91	407	0.95	0.01	0.99
4	108	0.90	419	0.94	0.02	0.99
4	109	0.92	472	0.95	0.02	0.99
4	110	0.91	301	0.95	0.01	0.99
4	111	0.91	346	0.95	0.02	0.99
4	112	0.91	619	0.95	0.01	0.99
4	113	0.91	362	0.95	0.02	0.99
4	114	0.91	625	0.94	0.02	0.99
4	115	0.92	566	0.95	0.02	0.99
4	116	0.91	599	0.95	0.01	0.99
4	117	0.92	528	0.95	0.01	0.99
4	118	0.91	649	0.95	0.01	0.99
4	119	0.92	430	0.95	0.01	0.99
4	120	0.91	565	0.95	0.01	0.99
5	2	0.85	88	0.68	0.61	0.70
5	3	0.72	6	0.50	0.74	0.91
5	4	0.87	13	0.51	0.85	0.93
5	5	0.77	19	0.50	0.76	0.84
5	6	0.80	10	0.51	0.80	0.93
5	7	0.82	49	0.79	0.24	0.85
5	8	0.72	129	0.68	0.37	0.74
5	9	0.70	10	0.64	0.42	0.69
5	10	0.73	66	0.70	0.33	0.77

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	11	0.77	68	0.75	0.27	0.82
5	12	0.70	9	0.69	0.33	0.74
5	13	0.75	93	0.73	0.28	0.81
5	14	0.74	83	0.74	0.26	0.81
5	15	0.62	515	0.55	0.53	0.54
5	16	0.80	106	0.78	0.25	0.85
5	17	0.81	82	0.77	0.26	0.85
5	18	0.79	87	0.77	0.25	0.84
5	19	0.74	71	0.73	0.28	0.81
5	20	0.77	85	0.75	0.27	0.83
5	21	0.83	42	0.88	0.08	0.95
5	22	0.86	6	0.93	0.00	0.97
5	23	0.81	1	0.90	0.00	0.95
5	24	0.82	6	0.91	0.00	0.97
5	25	0.84	6	0.92	0.00	0.96
5	26	0.83	1	0.92	0.00	0.93
5	27	0.84	68	0.88	0.08	0.95
5	28	0.85	75	0.88	0.08	0.95
5	29	0.82	5	0.91	0.00	0.96
5	30	0.83	151	0.87	0.08	0.95
5	31	0.80	215	0.86	0.07	0.94
5	32	0.74	162	0.84	0.07	0.93
5	33	0.80	217	0.86	0.09	0.94
5	34	0.79	210	0.85	0.08	0.93
5	35	0.80	292	0.85	0.09	0.94
5	36	0.79	4	0.89	0.00	0.95

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	37	0.79	5	0.89	0.00	0.94
5	38	0.79	164	0.85	0.10	0.93
5	39	0.81	171	0.86	0.09	0.94
5	40	0.79	253	0.85	0.09	0.93
5	41	0.78	351	0.85	0.09	0.92
5	42	0.79	264	0.84	0.10	0.93
5	43	0.73	204	0.83	0.07	0.91
5	44	0.78	342	0.84	0.09	0.93
5	45	0.77	330	0.84	0.09	0.92
5	46	0.79	380	0.86	0.07	0.94
5	47	0.79	326	0.86	0.08	0.93
5	48	0.80	352	0.86	0.07	0.93
5	49	0.79	396	0.86	0.07	0.93
5	50	0.78	365	0.86	0.06	0.92
5	51	0.77	562	0.85	0.07	0.93
5	52	0.77	387	0.84	0.08	0.92
5	53	0.78	507	0.86	0.07	0.93
5	54	0.77	444	0.85	0.07	0.92
5	55	0.78	379	0.86	0.07	0.93
5	56	0.78	432	0.85	0.07	0.92
5	57	0.77	584	0.85	0.07	0.93
5	58	0.78	507	0.85	0.07	0.93
5	59	0.78	582	0.86	0.06	0.94
5	60	0.79	582	0.86	0.06	0.94
5	61	0.82	380	0.87	0.08	0.94
5	62	0.81	405	0.87	0.08	0.94

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	63	0.80	517	0.88	0.05	0.95
5	64	0.79	542	0.87	0.05	0.95
5	65	0.81	481	0.87	0.07	0.94
5	66	0.78	730	0.86	0.05	0.94
5	67	0.77	639	0.85	0.06	0.93
5	68	0.77	716	0.86	0.05	0.94
5	69	0.78	593	0.86	0.05	0.94
5	70	0.77	595	0.85	0.06	0.93
5	71	0.76	766	0.85	0.06	0.94
5	72	0.77	727	0.86	0.05	0.93
5	73	0.76	748	0.85	0.06	0.93
5	74	0.77	700	0.86	0.06	0.94
5	75	0.77	651	0.86	0.05	0.94
5	76	0.76	810	0.85	0.05	0.93
5	77	0.76	725	0.86	0.05	0.93
5	78	0.76	726	0.85	0.05	0.93
5	79	0.76	707	0.85	0.06	0.93
5	80	0.77	803	0.85	0.06	0.93
5	81	0.76	908	0.86	0.05	0.94
5	82	0.78	855	0.86	0.05	0.94
5	83	0.77	856	0.86	0.05	0.94
5	84	0.78	822	0.87	0.04	0.94
5	85	0.77	880	0.86	0.04	0.94
5	86	0.78	892	0.87	0.04	0.95
5	87	0.78	954	0.87	0.04	0.95
5	88	0.80	960	0.88	0.03	0.95

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	89	0.78	913	0.87	0.03	0.95
5	90	0.79	991	0.88	0.03	0.96
5	91	0.80	960	0.89	0.02	0.96
5	92	0.81	5	0.90	0.00	0.92
5	93	0.81	2	0.90	0.00	0.91
5	94	0.84	875	0.90	0.04	0.96
5	95	0.84	2	0.92	0.00	0.93
5	96	0.85	2	0.92	0.00	0.94
5	97	0.85	4	0.93	0.00	0.94
5	98	0.87	5	0.93	0.00	0.95
5	99	0.87	4	0.94	0.00	0.95
5	100	0.89	2	0.94	0.00	0.96
5	101	0.90	5	0.95	0.00	0.96
5	102	0.91	2	0.95	0.00	0.97
5	103	0.92	3	0.96	0.00	0.97
5	104	0.93	5	0.97	0.00	0.98
5	105	0.94	7	0.97	0.00	0.98
5	106	0.95	5	0.97	0.00	0.99
5	107	0.96	5	0.98	0.00	0.99
5	108	0.97	7	0.98	0.00	1.00
5	109	0.98	9	0.99	0.00	1.00
5	110	0.98	7	0.99	0.00	1.00
5	111	0.99	5	0.99	0.00	1.00
5	112	0.99	15	0.99	0.00	1.00
5	113	0.99	12	1.00	0.00	1.00
5	114	0.99	19	1.00	0.00	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
5	115	1.00	16	1.00	0.00	1.00
5	116	1.00	23	1.00	0.00	1.00
5	117	0.99	24	1.00	0.00	1.00
5	118	0.99	28	1.00	0.00	1.00
5	119	1.00	1	1.00	0.00	1.00
5	120	1.00	1	1.00	0.00	1.00
6	2	0.90	158	0.55	0.81	0.52
6	3	0.79	9	0.73	0.32	0.79
6	4	0.73	64	0.72	0.28	0.81
6	5	0.73	111	0.71	0.32	0.77
6	6	0.86	14	0.54	0.77	0.87
6	7	0.90	1	0.52	0.93	0.99
6	8	0.69	94	0.71	0.26	0.79
6	9	0.71	68	0.73	0.25	0.80
6	10	0.86	11	0.53	0.80	0.87
6	11	0.84	11	0.51	0.83	0.85
6	12	0.75	28	0.55	0.65	0.64
6	13	0.83	12	0.52	0.78	0.81
6	14	0.69	299	0.64	0.41	0.70
6	15	0.71	196	0.74	0.23	0.82
6	16	0.72	79	0.74	0.24	0.83
6	17	0.75	126	0.78	0.20	0.85
6	18	0.87	9	0.53	0.82	0.85
6	19	0.76	150	0.77	0.22	0.85
6	20	0.77	104	0.78	0.21	0.86
6	21	0.77	98	0.78	0.20	0.87

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	22	0.77	91	0.79	0.19	0.88
6	23	0.78	120	0.79	0.20	0.88
6	24	0.72	82	0.79	0.14	0.87
6	25	0.77	139	0.80	0.17	0.88
6	26	0.73	138	0.80	0.14	0.88
6	27	0.78	118	0.81	0.16	0.88
6	28	0.74	71	0.81	0.13	0.88
6	29	0.79	99	0.82	0.16	0.89
6	30	0.78	107	0.80	0.17	0.88
6	31	0.77	105	0.80	0.17	0.89
6	32	0.76	116	0.79	0.17	0.88
6	33	0.76	119	0.78	0.19	0.88
6	34	0.77	125	0.80	0.17	0.89
6	35	0.78	110	0.81	0.15	0.89
6	36	0.74	121	0.79	0.16	0.88
6	37	0.77	127	0.80	0.16	0.89
6	38	0.74	115	0.81	0.13	0.89
6	39	0.78	184	0.82	0.14	0.90
6	40	0.77	188	0.82	0.14	0.90
6	41	0.78	181	0.82	0.15	0.90
6	42	0.78	152	0.81	0.16	0.89
6	43	0.77	143	0.81	0.14	0.89
6	44	0.77	138	0.81	0.14	0.89
6	45	0.78	160	0.83	0.13	0.90
6	46	0.77	296	0.82	0.14	0.90
6	47	0.77	176	0.83	0.12	0.90

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	48	0.78	205	0.82	0.13	0.90
6	49	0.76	223	0.81	0.15	0.89
6	50	0.77	328	0.82	0.14	0.89
6	51	0.76	169	0.81	0.14	0.89
6	52	0.77	142	0.82	0.13	0.89
6	53	0.75	150	0.80	0.15	0.88
6	54	0.77	297	0.81	0.15	0.89
6	55	0.77	303	0.82	0.13	0.90
6	56	0.77	252	0.81	0.15	0.89
6	57	0.75	274	0.81	0.14	0.89
6	58	0.76	231	0.81	0.14	0.90
6	59	0.76	339	0.81	0.13	0.90
6	60	0.77	290	0.81	0.15	0.89
6	61	0.76	320	0.81	0.14	0.89
6	62	0.76	332	0.81	0.14	0.90
6	63	0.75	299	0.81	0.12	0.90
6	64	0.76	427	0.81	0.14	0.89
6	65	0.74	138	0.79	0.15	0.87
6	66	0.72	144	0.78	0.16	0.87
6	67	0.76	269	0.81	0.15	0.89
6	68	0.72	150	0.79	0.15	0.87
6	69	0.76	325	0.81	0.14	0.89
6	70	0.72	136	0.78	0.15	0.86
6	71	0.71	349	0.81	0.10	0.90
6	72	0.71	147	0.77	0.16	0.86
6	73	0.71	702	0.78	0.14	0.87

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	74	0.75	572	0.81	0.14	0.89
6	75	0.71	550	0.78	0.15	0.86
6	76	0.71	599	0.78	0.14	0.87
6	77	0.76	397	0.81	0.13	0.89
6	78	0.70	146	0.77	0.15	0.86
6	79	0.76	443	0.81	0.14	0.89
6	80	0.71	444	0.81	0.10	0.89
6	81	0.76	268	0.81	0.14	0.89
6	82	0.71	668	0.79	0.14	0.88
6	83	0.76	474	0.82	0.12	0.90
6	84	0.77	307	0.81	0.14	0.89
6	85	0.71	635	0.78	0.14	0.87
6	86	0.71	812	0.79	0.13	0.88
6	87	0.71	626	0.78	0.15	0.86
6	88	0.77	322	0.82	0.14	0.90
6	89	0.77	491	0.82	0.12	0.90
6	90	0.76	528	0.82	0.13	0.90
6	91	0.71	722	0.79	0.13	0.88
6	92	0.77	542	0.82	0.13	0.90
6	93	0.71	864	0.79	0.12	0.88
6	94	0.77	551	0.82	0.13	0.90
6	95	0.71	708	0.79	0.14	0.87
6	96	0.77	597	0.82	0.12	0.91
6	97	0.71	809	0.79	0.13	0.88
6	98	0.77	582	0.83	0.12	0.91
6	99	0.74	449	0.81	0.12	0.89

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
6	100	0.71	783	0.79	0.14	0.88
6	101	0.74	431	0.81	0.13	0.89
6	102	0.77	376	0.82	0.14	0.90
6	103	0.76	689	0.82	0.11	0.91
6	104	0.77	539	0.83	0.11	0.91
6	105	0.77	437	0.83	0.10	0.91
6	106	0.77	443	0.83	0.11	0.91
6	107	0.77	647	0.83	0.10	0.92
6	108	0.77	546	0.83	0.11	0.91
6	109	0.74	360	0.80	0.13	0.88
6	110	0.77	485	0.83	0.11	0.91
6	111	0.76	770	0.83	0.11	0.90
6	112	0.77	559	0.84	0.10	0.92
6	113	0.77	535	0.84	0.09	0.92
6	114	0.72	1	0.86	0.00	0.99
6	115	0.78	687	0.84	0.09	0.92
6	116	0.77	577	0.84	0.09	0.92
6	117	0.77	657	0.84	0.08	0.92
6	118	0.78	738	0.85	0.09	0.93
6	119	0.71	725	0.81	0.09	0.89
6	120	0.78	553	0.84	0.10	0.92
7	2	1.00	1	1.00	0.00	1.00
7	3	1.00	1	1.00	0.00	1.00
7	4	0.96	63	0.97	0.02	1.00
7	5	0.93	9	0.96	0.00	0.98
7	6	0.88	1	0.94	0.00	0.98

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	7	0.84	2	0.92	0.00	0.98
7	8	0.92	2	0.96	0.00	0.99
7	9	0.84	1	0.92	0.00	0.98
7	10	0.93	4	0.97	0.00	0.99
7	11	0.87	107	0.92	0.04	0.97
7	12	0.92	5	0.96	0.00	0.99
7	13	0.86	1	0.93	0.00	0.98
7	14	0.80	137	0.88	0.04	0.96
7	15	0.86	108	0.90	0.05	0.97
7	16	0.82	117	0.90	0.03	0.97
7	17	0.82	70	0.90	0.01	0.98
7	18	0.84	130	0.90	0.04	0.97
7	19	0.79	108	0.89	0.02	0.97
7	20	0.80	143	0.89	0.02	0.97
7	21	0.80	154	0.89	0.03	0.96
7	22	0.84	111	0.89	0.05	0.96
7	23	0.78	180	0.87	0.03	0.96
7	24	0.79	146	0.88	0.03	0.96
7	25	0.82	167	0.89	0.05	0.96
7	26	0.83	165	0.90	0.03	0.97
7	27	0.79	205	0.88	0.03	0.95
7	28	0.81	134	0.88	0.05	0.96
7	29	0.87	273	0.91	0.06	0.97
7	30	0.88	260	0.90	0.07	0.97
7	31	0.81	244	0.89	0.04	0.96
7	32	0.86	260	0.90	0.06	0.97

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	33	0.82	314	0.89	0.05	0.96
7	34	0.88	253	0.91	0.05	0.97
7	35	0.88	230	0.93	0.03	0.97
7	36	0.80	294	0.89	0.03	0.96
7	37	0.81	275	0.89	0.04	0.96
7	38	0.82	230	0.89	0.03	0.96
7	39	0.82	374	0.89	0.03	0.96
7	40	0.81	407	0.88	0.05	0.95
7	41	0.80	272	0.89	0.02	0.96
7	42	0.81	264	0.89	0.02	0.96
7	43	0.78	299	0.88	0.03	0.96
7	44	0.80	363	0.88	0.04	0.96
7	45	0.80	294	0.88	0.04	0.96
7	46	0.81	235	0.88	0.05	0.95
7	47	0.80	255	0.88	0.04	0.96
7	48	0.79	240	0.88	0.04	0.95
7	49	0.79	278	0.88	0.04	0.95
7	50	0.78	311	0.87	0.03	0.95
7	51	0.79	236	0.87	0.04	0.95
7	52	0.79	371	0.87	0.04	0.95
7	53	0.80	302	0.88	0.04	0.95
7	54	0.78	357	0.87	0.03	0.95
7	55	0.80	275	0.88	0.04	0.95
7	56	0.77	441	0.87	0.04	0.95
7	57	0.78	380	0.87	0.04	0.95
7	58	0.78	311	0.87	0.04	0.95

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	59	0.78	431	0.87	0.03	0.95
7	60	0.77	348	0.87	0.02	0.95
7	61	0.80	372	0.87	0.06	0.94
7	62	0.78	331	0.87	0.03	0.95
7	63	0.77	416	0.87	0.03	0.95
7	64	0.79	415	0.88	0.04	0.95
7	65	0.79	459	0.88	0.03	0.95
7	66	0.79	429	0.88	0.04	0.95
7	67	0.78	430	0.87	0.03	0.95
7	68	0.78	368	0.87	0.03	0.95
7	69	0.80	417	0.89	0.03	0.96
7	70	0.78	553	0.87	0.03	0.94
7	71	0.80	400	0.88	0.04	0.95
7	72	0.80	278	0.87	0.06	0.95
7	73	0.81	6	0.90	0.00	1.00
7	74	0.78	520	0.88	0.03	0.95
7	75	0.78	378	0.88	0.02	0.95
7	76	0.78	428	0.88	0.03	0.95
7	77	0.78	484	0.88	0.03	0.95
7	78	0.78	451	0.88	0.03	0.96
7	79	0.87	2	0.94	0.00	1.00
7	80	0.79	401	0.88	0.04	0.95
7	81	0.81	562	0.89	0.03	0.96
7	82	0.77	508	0.87	0.03	0.95
7	83	0.87	4	0.93	0.00	1.00
7	84	0.77	507	0.87	0.03	0.95

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	85	0.80	525	0.87	0.06	0.94
7	86	0.80	413	0.87	0.05	0.94
7	87	0.81	492	0.88	0.06	0.95
7	88	0.87	4	0.93	0.00	1.00
7	89	0.87	4	0.93	0.00	1.00
7	90	0.87	3	0.94	0.00	1.00
7	91	0.77	587	0.87	0.03	0.95
7	92	0.81	591	0.87	0.06	0.94
7	93	0.81	629	0.89	0.04	0.96
7	94	0.77	628	0.87	0.02	0.95
7	95	0.87	6	0.94	0.00	1.00
7	96	0.88	5	0.94	0.00	1.00
7	97	0.76	431	0.86	0.03	0.95
7	98	0.77	696	0.87	0.03	0.95
7	99	0.76	653	0.87	0.03	0.95
7	100	0.80	721	0.87	0.06	0.94
7	101	0.87	2	0.93	0.00	1.00
7	102	0.76	616	0.87	0.02	0.95
7	103	0.77	550	0.87	0.02	0.95
7	104	0.80	499	0.88	0.04	0.95
7	105	0.76	505	0.87	0.02	0.95
7	106	0.77	817	0.88	0.02	0.95
7	107	0.81	734	0.88	0.05	0.95
7	108	0.87	1	0.93	0.00	1.00
7	109	0.82	702	0.89	0.04	0.95
7	110	0.81	544	0.88	0.05	0.95

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
7	111	0.82	560	0.89	0.04	0.95
7	112	0.81	1	0.91	0.00	1.00
7	113	0.77	688	0.87	0.03	0.96
7	114	0.81	1	0.91	0.00	1.00
7	115	0.77	491	0.88	0.02	0.95
7	116	0.82	618	0.89	0.04	0.96
7	117	0.78	810	0.88	0.02	0.96
7	118	0.77	744	0.87	0.02	0.96
7	119	0.76	688	0.87	0.02	0.95
7	120	0.83	433	0.90	0.03	0.96
8	2	0.82	35	0.87	0.08	0.96
8	3	0.89	26	0.91	0.07	0.96
8	4	0.78	3	0.85	0.07	0.88
8	5	0.93	4	0.93	0.08	0.98
8	6	0.77	63	0.86	0.05	0.94
8	7	0.72	14	0.80	0.13	0.87
8	8	0.70	16	0.78	0.14	0.88
8	9	0.85	88	0.87	0.10	0.94
8	10	0.84	62	0.88	0.09	0.95
8	11	0.90	108	0.90	0.10	0.96
8	12	0.85	104	0.88	0.09	0.96
8	13	0.88	94	0.88	0.11	0.96
8	14	0.84	134	0.87	0.10	0.94
8	15	0.77	63	0.82	0.13	0.91
8	16	0.77	129	0.83	0.11	0.92
8	17	0.79	157	0.84	0.11	0.92

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	18	0.80	110	0.83	0.14	0.91
8	19	0.88	161	0.87	0.13	0.95
8	20	0.79	93	0.83	0.12	0.91
8	21	0.79	119	0.84	0.11	0.93
8	22	0.87	148	0.89	0.08	0.96
8	23	0.83	88	0.89	0.05	0.95
8	24	0.84	116	0.90	0.05	0.96
8	25	0.88	99	0.90	0.08	0.96
8	26	0.84	165	0.89	0.06	0.96
8	27	0.84	90	0.90	0.04	0.95
8	28	0.83	152	0.89	0.05	0.95
8	29	0.86	206	0.90	0.05	0.96
8	30	0.90	150	0.93	0.04	0.97
8	31	0.89	3	0.94	0.00	0.99
8	32	0.90	123	0.93	0.03	0.98
8	33	0.88	2	0.94	0.00	0.99
8	34	0.91	213	0.94	0.03	0.98
8	35	0.92	7	0.96	0.00	1.00
8	36	0.92	250	0.95	0.02	0.99
8	37	0.91	192	0.94	0.03	0.99
8	38	0.91	247	0.94	0.03	0.98
8	39	0.91	289	0.94	0.03	0.99
8	40	0.90	20	0.95	0.00	0.99
8	41	0.90	215	0.94	0.03	0.98
8	42	0.93	18	0.97	0.00	0.99
8	43	0.90	7	0.95	0.00	0.99

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	44	0.91	20	0.96	0.00	1.00
8	45	0.92	13	0.96	0.00	1.00
8	46	0.92	21	0.96	0.00	1.00
8	47	0.92	16	0.96	0.00	0.99
8	48	0.91	13	0.96	0.00	0.99
8	49	0.92	274	0.96	0.01	0.99
8	50	0.94	6	0.97	0.00	1.00
8	51	0.93	274	0.96	0.01	0.99
8	52	0.92	311	0.96	0.01	0.99
8	53	0.93	10	0.97	0.00	1.00
8	54	0.94	7	0.97	0.00	0.99
8	55	0.93	265	0.96	0.01	0.99
8	56	0.93	183	0.96	0.00	0.99
8	57	0.94	41	0.97	0.00	0.99
8	58	0.93	205	0.96	0.01	0.99
8	59	0.94	370	0.97	0.01	1.00
8	60	0.96	89	0.98	0.00	1.00
8	61	0.95	213	0.98	0.00	1.00
8	62	0.95	161	0.98	0.00	1.00
8	63	0.96	88	0.98	0.00	1.00
8	64	0.96	206	0.98	0.01	1.00
8	65	0.97	156	0.98	0.01	1.00
8	66	0.96	171	0.98	0.01	1.00
8	67	0.96	111	0.98	0.00	1.00
8	68	0.97	86	0.98	0.00	1.00
8	69	0.97	131	0.98	0.00	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	70	0.96	83	0.98	0.00	0.99
8	71	0.97	62	0.98	0.00	1.00
8	72	0.96	98	0.98	0.00	0.99
8	73	0.96	81	0.98	0.00	0.99
8	74	0.97	90	0.98	0.00	1.00
8	75	0.96	135	0.98	0.00	1.00
8	76	0.97	77	0.99	0.00	1.00
8	77	0.98	64	0.99	0.00	1.00
8	78	0.98	75	0.99	0.00	1.00
8	79	0.97	220	0.98	0.00	1.00
8	80	0.97	87	0.99	0.00	1.00
8	81	0.98	218	0.99	0.00	1.00
8	82	0.98	49	0.99	0.00	1.00
8	83	0.98	21	0.99	0.00	0.99
8	84	0.98	126	0.99	0.00	1.00
8	85	0.97	9	0.99	0.00	0.99
8	86	0.97	171	0.99	0.00	1.00
8	87	0.98	11	0.99	0.00	0.99
8	88	0.98	13	0.99	0.00	0.99
8	89	0.98	12	0.98	0.01	0.99
8	90	0.97	196	0.99	0.00	1.00
8	91	0.97	4	0.98	0.00	0.99
8	92	0.98	174	0.99	0.00	1.00
8	93	0.98	344	0.99	0.00	1.00
8	94	0.97	198	0.99	0.00	1.00
8	95	0.98	10	0.99	0.01	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
8	96	0.98	10	0.99	0.01	1.00
8	97	0.98	178	0.99	0.00	1.00
8	98	0.98	13	0.99	0.01	1.00
8	99	0.98	11	0.99	0.00	1.00
8	100	0.98	13	0.99	0.00	0.99
8	101	0.98	12	0.99	0.00	0.99
8	102	0.98	11	0.99	0.00	0.99
8	103	0.98	15	0.99	0.00	1.00
8	104	0.98	16	0.99	0.00	1.00
8	105	0.98	8	0.99	0.00	0.99
8	106	0.98	12	0.99	0.00	1.00
8	107	0.99	17	0.99	0.00	1.00
8	108	0.99	14	1.00	0.00	1.00
8	109	0.99	13	1.00	0.00	1.00
8	110	0.99	19	1.00	0.00	1.00
8	111	1.00	13	1.00	0.00	1.00
8	112	1.00	14	1.00	0.00	1.00
8	113	1.00	14	1.00	0.00	1.00
8	114	1.00	14	1.00	0.00	1.00
8	115	1.00	18	1.00	0.00	1.00
8	116	1.00	19	1.00	0.00	1.00
8	117	1.00	22	1.00	0.00	1.00
8	118	1.00	22	1.00	0.00	1.00
8	119	1.00	15	1.00	0.00	1.00
8	120	1.00	17	1.00	0.00	1.00
9	2	0.88	12	0.93	0.02	0.97

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	3	0.95	6	0.97	0.01	0.99
9	4	0.85	7	0.92	0.01	0.96
9	5	0.76	56	0.88	0.01	0.93
9	6	0.86	44	0.91	0.04	0.98
9	7	0.76	9	0.82	0.12	0.89
9	8	0.83	52	0.90	0.02	0.96
9	9	0.84	94	0.90	0.04	0.96
9	10	0.84	65	0.90	0.03	0.97
9	11	0.76	85	0.87	0.02	0.95
9	12	0.72	63	0.85	0.02	0.94
9	13	0.76	77	0.87	0.03	0.96
9	14	0.81	139	0.88	0.06	0.96
9	15	0.82	125	0.88	0.05	0.96
9	16	0.77	98	0.86	0.06	0.95
9	17	0.77	138	0.86	0.04	0.96
9	18	0.76	105	0.86	0.03	0.96
9	19	0.81	148	0.88	0.05	0.96
9	20	0.75	171	0.85	0.05	0.94
9	21	0.83	181	0.88	0.08	0.95
9	22	0.82	190	0.87	0.08	0.96
9	23	0.83	139	0.88	0.07	0.95
9	24	0.80	154	0.85	0.11	0.93
9	25	0.74	214	0.85	0.04	0.93
9	26	0.68	138	0.82	0.04	0.92
9	27	0.69	124	0.83	0.04	0.92
9	28	0.76	142	0.84	0.08	0.93

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	29	0.67	80	0.81	0.06	0.89
9	30	0.73	137	0.84	0.05	0.92
9	31	0.71	103	0.82	0.07	0.91
9	32	0.69	274	0.82	0.04	0.92
9	33	0.62	170	0.80	0.03	0.91
9	34	0.71	272	0.83	0.04	0.93
9	35	0.69	147	0.82	0.05	0.91
9	36	0.70	324	0.82	0.05	0.93
9	37	0.74	216	0.83	0.09	0.90
9	38	0.77	188	0.84	0.10	0.91
9	39	0.74	313	0.85	0.05	0.93
9	40	0.73	305	0.85	0.04	0.94
9	41	0.73	267	0.85	0.03	0.93
9	42	0.74	172	0.82	0.10	0.90
9	43	0.72	309	0.83	0.05	0.92
9	44	0.74	196	0.82	0.10	0.90
9	45	0.74	320	0.84	0.05	0.92
9	46	0.73	372	0.84	0.06	0.93
9	47	0.74	391	0.84	0.05	0.92
9	48	0.73	323	0.84	0.05	0.92
9	49	0.71	383	0.84	0.04	0.92
9	50	0.72	352	0.84	0.05	0.92
9	51	0.78	312	0.84	0.09	0.92
9	52	0.71	348	0.84	0.04	0.91
9	53	0.77	366	0.84	0.09	0.92
9	54	0.68	386	0.82	0.04	0.91

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	55	0.69	417	0.82	0.04	0.91
9	56	0.67	511	0.81	0.04	0.91
9	57	0.68	345	0.82	0.04	0.90
9	58	0.68	315	0.81	0.05	0.90
9	59	0.70	509	0.83	0.04	0.92
9	60	0.68	585	0.82	0.04	0.91
9	61	0.67	409	0.81	0.04	0.91
9	62	0.75	345	0.83	0.09	0.91
9	63	0.75	313	0.82	0.11	0.90
9	64	0.77	591	0.84	0.08	0.92
9	65	0.74	264	0.82	0.11	0.90
9	66	0.75	366	0.83	0.10	0.90
9	67	0.65	324	0.80	0.05	0.90
9	68	0.75	250	0.82	0.12	0.90
9	69	0.66	399	0.80	0.05	0.90
9	70	0.66	248	0.80	0.05	0.89
9	71	0.66	463	0.80	0.05	0.89
9	72	0.75	365	0.82	0.10	0.90
9	73	0.65	621	0.81	0.03	0.91
9	74	0.76	283	0.83	0.11	0.90
9	75	0.76	243	0.82	0.11	0.90
9	76	0.63	113	0.77	0.09	0.85
9	77	0.76	373	0.82	0.11	0.90
9	78	0.64	491	0.80	0.05	0.90
9	79	0.74	272	0.81	0.12	0.89
9	80	0.74	393	0.82	0.11	0.90

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	81	0.65	373	0.80	0.05	0.89
9	82	0.64	519	0.80	0.05	0.90
9	83	0.63	652	0.80	0.04	0.90
9	84	0.64	589	0.80	0.04	0.90
9	85	0.63	638	0.79	0.05	0.90
9	86	0.78	519	0.84	0.10	0.92
9	87	0.76	358	0.84	0.09	0.92
9	88	0.76	594	0.84	0.08	0.92
9	89	0.78	442	0.83	0.11	0.91
9	90	0.76	916	0.83	0.09	0.91
9	91	0.78	654	0.83	0.11	0.91
9	92	0.77	711	0.84	0.08	0.93
9	93	0.76	983	0.84	0.09	0.92
9	94	0.76	685	0.84	0.09	0.92
9	95	0.76	743	0.84	0.08	0.92
9	96	0.76	705	0.84	0.08	0.92
9	97	0.78	668	0.84	0.10	0.92
9	98	0.77	1097	0.84	0.09	0.92
9	99	0.76	1016	0.83	0.10	0.91
9	100	0.78	786	0.84	0.11	0.92
9	101	0.76	1052	0.84	0.09	0.92
9	102	0.75	1078	0.83	0.09	0.91
9	103	0.79	850	0.85	0.09	0.92
9	104	0.77	730	0.84	0.08	0.92
9	105	0.70	1123	0.83	0.04	0.92
9	106	0.76	1113	0.84	0.08	0.92

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
9	107	0.77	1185	0.84	0.08	0.93
9	108	0.76	1227	0.84	0.08	0.92
9	109	0.78	1200	0.85	0.08	0.93
9	110	0.76	1089	0.85	0.07	0.93
9	111	0.77	1159	0.85	0.06	0.93
9	112	0.76	1130	0.84	0.08	0.92
9	113	0.77	1177	0.85	0.07	0.93
9	114	0.76	1191	0.84	0.08	0.92
9	115	0.77	1175	0.84	0.08	0.93
9	116	0.77	1281	0.84	0.08	0.93
9	117	0.77	1261	0.85	0.07	0.93
9	118	0.77	1291	0.85	0.07	0.93
9	119	0.77	1314	0.85	0.07	0.93
9	120	0.77	1224	0.84	0.08	0.93
10	2	0.84	13	0.84	0.16	0.95
10	3	0.92	46	0.91	0.11	0.97
10	4	0.94	1	0.78	0.38	0.91
10	5	0.94	51	0.92	0.09	0.97
10	6	0.81	55	0.85	0.11	0.94
10	7	0.71	52	0.82	0.07	0.93
10	8	0.80	71	0.87	0.06	0.95
10	9	0.89	54	0.91	0.07	0.97
10	10	0.87	73	0.90	0.07	0.97
10	11	0.80	118	0.87	0.07	0.95
10	12	0.90	70	0.91	0.08	0.97
10	13	0.85	128	0.88	0.09	0.95

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	14	0.88	122	0.89	0.10	0.96
10	15	0.82	69	0.88	0.07	0.95
10	16	0.86	88	0.89	0.07	0.97
10	17	0.83	92	0.89	0.05	0.96
10	18	0.81	100	0.87	0.06	0.95
10	19	0.83	88	0.88	0.06	0.95
10	20	0.80	126	0.88	0.05	0.95
10	21	0.81	75	0.89	0.04	0.94
10	22	0.81	63	0.87	0.06	0.95
10	23	0.80	91	0.87	0.05	0.95
10	24	0.77	167	0.87	0.04	0.95
10	25	0.80	114	0.86	0.07	0.94
10	26	0.74	111	0.84	0.05	0.92
10	27	0.72	138	0.84	0.04	0.92
10	28	0.76	115	0.85	0.05	0.93
10	29	0.80	158	0.86	0.09	0.93
10	30	0.81	180	0.85	0.11	0.92
10	31	0.80	180	0.87	0.07	0.94
10	32	0.81	173	0.87	0.07	0.95
10	33	0.75	255	0.85	0.05	0.93
10	34	0.80	213	0.86	0.08	0.94
10	35	0.80	319	0.86	0.07	0.94
10	36	0.83	287	0.87	0.08	0.94
10	37	0.85	218	0.88	0.10	0.95
10	38	0.76	314	0.86	0.05	0.94
10	39	0.80	346	0.87	0.07	0.94

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	40	0.82	408	0.86	0.09	0.94
10	41	0.75	259	0.85	0.06	0.93
10	42	0.79	316	0.84	0.11	0.93
10	43	0.78	297	0.84	0.10	0.92
10	44	0.78	305	0.84	0.09	0.92
10	45	0.79	220	0.84	0.10	0.92
10	46	0.96	1	0.69	0.58	0.96
10	47	0.86	5	0.80	0.27	0.88
10	48	0.88	4	0.80	0.28	0.88
10	49	0.90	283	0.92	0.06	0.97
10	50	0.91	21	0.90	0.11	0.96
10	51	0.93	234	0.94	0.04	0.98
10	52	0.94	284	0.96	0.02	0.99
10	53	0.94	141	0.95	0.03	0.99
10	54	0.92	112	0.95	0.02	0.99
10	55	0.95	85	0.96	0.02	0.99
10	56	0.96	89	0.97	0.01	1.00
10	57	0.96	74	0.98	0.00	1.00
10	58	0.97	470	0.98	0.00	1.00
10	59	0.97	294	0.98	0.00	1.00
10	60	0.97	345	0.98	0.00	1.00
10	61	0.98	139	0.99	0.01	1.00
10	62	0.98	338	0.99	0.00	1.00
10	63	0.98	247	0.99	0.00	1.00
10	64	0.97	429	0.99	0.00	1.00
10	65	0.97	380	0.98	0.00	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	66	0.98	339	0.99	0.00	1.00
10	67	0.98	187	0.99	0.00	1.00
10	68	0.98	343	0.99	0.00	1.00
10	69	0.98	487	0.99	0.00	1.00
10	70	0.98	379	0.99	0.00	1.00
10	71	0.97	362	0.99	0.00	1.00
10	72	0.97	320	0.98	0.00	1.00
10	73	0.98	351	0.99	0.00	1.00
10	74	0.98	465	0.99	0.00	1.00
10	75	0.97	530	0.98	0.00	1.00
10	76	0.97	340	0.98	0.00	1.00
10	77	0.97	415	0.98	0.00	1.00
10	78	0.98	65	0.99	0.00	1.00
10	79	0.98	45	0.99	0.00	1.00
10	80	0.97	40	0.99	0.00	1.00
10	81	0.98	48	0.99	0.00	1.00
10	82	0.98	37	0.99	0.00	1.00
10	83	0.98	38	0.99	0.00	1.00
10	84	0.99	50	0.99	0.00	1.00
10	85	0.98	434	0.99	0.00	1.00
10	86	0.98	59	0.99	0.00	1.00
10	87	0.98	62	0.99	0.00	1.00
10	88	0.98	70	0.99	0.00	1.00
10	89	0.99	93	0.99	0.00	1.00
10	90	0.98	56	0.99	0.00	1.00
10	91	0.98	56	0.99	0.00	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	92	0.98	51	0.99	0.00	1.00
10	93	0.98	51	0.99	0.00	0.99
10	94	0.98	37	0.99	0.00	1.00
10	95	0.98	72	0.99	0.00	1.00
10	96	0.97	80	0.99	0.00	1.00
10	97	0.98	61	0.99	0.00	1.00
10	98	0.98	38	0.99	0.00	1.00
10	99	0.98	51	0.99	0.00	1.00
10	100	0.98	50	0.99	0.00	1.00
10	101	0.98	50	0.99	0.00	1.00
10	102	0.98	92	0.99	0.00	1.00
10	103	0.98	39	0.99	0.00	1.00
10	104	0.98	56	0.99	0.00	1.00
10	105	0.98	76	0.99	0.00	1.00
10	106	0.98	83	0.99	0.00	1.00
10	107	0.98	66	0.99	0.00	1.00
10	108	0.99	36	0.99	0.00	1.00
10	109	0.99	39	0.99	0.00	1.00
10	110	1.00	59	1.00	0.00	1.00
10	111	1.00	50	1.00	0.00	1.00
10	112	1.00	54	1.00	0.00	1.00
10	113	1.00	63	1.00	0.00	1.00
10	114	1.00	56	1.00	0.00	1.00
10	115	1.00	70	1.00	0.00	1.00
10	116	1.00	74	1.00	0.00	1.00
10	117	1.00	73	1.00	0.00	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
10	118	1.00	85	1.00	0.00	1.00
10	119	1.00	86	1.00	0.00	1.00
10	120	1.00	104	1.00	0.00	1.00
11	2	0.93	102	0.84	0.26	0.92
11	3	0.79	17	0.88	0.03	0.98
11	4	0.86	40	0.91	0.04	0.98
11	5	0.88	58	0.91	0.07	0.97
11	6	0.90	62	0.92	0.06	0.98
11	7	0.87	236	0.80	0.28	0.88
11	8	0.87	69	0.92	0.04	0.98
11	9	0.86	87	0.90	0.06	0.97
11	10	0.80	78	0.87	0.05	0.96
11	11	0.81	82	0.88	0.05	0.96
11	12	0.84	60	0.90	0.05	0.96
11	13	0.71	71	0.84	0.04	0.94
11	14	0.89	357	0.73	0.42	0.82
11	15	0.84	114	0.88	0.08	0.95
11	16	0.74	126	0.84	0.06	0.94
11	17	0.80	104	0.84	0.12	0.92
11	18	0.70	144	0.83	0.05	0.92
11	19	0.70	60	0.83	0.05	0.92
11	20	0.69	150	0.82	0.05	0.93
11	21	0.67	62	0.79	0.09	0.89
11	22	0.72	84	0.82	0.08	0.91
11	23	0.68	141	0.81	0.06	0.91
11	24	0.71	84	0.81	0.09	0.90

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	25	0.66	153	0.79	0.08	0.87
11	26	0.72	110	0.82	0.08	0.91
11	27	0.75	94	0.83	0.08	0.91
11	28	0.71	56	0.81	0.09	0.89
11	29	0.72	81	0.82	0.08	0.91
11	30	0.72	116	0.82	0.09	0.91
11	31	0.71	92	0.81	0.09	0.90
11	32	0.72	68	0.81	0.10	0.90
11	33	0.70	67	0.80	0.10	0.89
11	34	0.74	93	0.83	0.08	0.91
11	35	0.68	137	0.79	0.10	0.87
11	36	0.69	70	0.80	0.09	0.89
11	37	0.73	75	0.81	0.10	0.89
11	38	0.74	97	0.83	0.09	0.91
11	39	0.74	122	0.84	0.06	0.92
11	40	0.77	267	0.85	0.06	0.93
11	41	0.76	215	0.85	0.05	0.93
11	42	0.74	301	0.83	0.08	0.90
11	43	0.75	87	0.83	0.10	0.91
11	44	0.73	86	0.82	0.09	0.91
11	45	0.74	138	0.84	0.06	0.92
11	46	0.73	80	0.82	0.09	0.90
11	47	0.73	155	0.84	0.06	0.92
11	48	0.73	300	0.83	0.07	0.92
11	49	0.73	282	0.83	0.07	0.92
11	50	0.73	87	0.82	0.09	0.90

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	51	0.73	254	0.83	0.06	0.92
11	52	0.73	159	0.83	0.07	0.91
11	53	0.74	277	0.83	0.08	0.92
11	54	0.73	304	0.83	0.07	0.92
11	55	0.73	170	0.83	0.07	0.91
11	56	0.75	183	0.84	0.07	0.92
11	57	0.73	204	0.83	0.07	0.91
11	58	0.75	236	0.83	0.08	0.92
11	59	0.73	274	0.83	0.07	0.92
11	60	0.72	128	0.82	0.08	0.91
11	61	0.74	288	0.84	0.06	0.92
11	62	0.72	318	0.83	0.06	0.92
11	63	0.73	249	0.83	0.07	0.92
11	64	0.73	269	0.82	0.08	0.91
11	65	0.71	254	0.82	0.07	0.91
11	66	0.73	307	0.83	0.07	0.91
11	67	0.72	348	0.83	0.07	0.92
11	68	0.72	295	0.82	0.07	0.92
11	69	0.71	164	0.82	0.07	0.90
11	70	0.72	321	0.83	0.06	0.92
11	71	0.71	246	0.82	0.07	0.91
11	72	0.72	305	0.83	0.07	0.92
11	73	0.72	336	0.84	0.04	0.92
11	74	0.71	280	0.82	0.06	0.91
11	75	0.70	371	0.83	0.05	0.92
11	76	0.71	170	0.82	0.06	0.91

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	77	0.71	327	0.83	0.05	0.92
11	78	0.72	151	0.82	0.07	0.92
11	79	0.72	342	0.83	0.06	0.92
11	80	0.72	276	0.83	0.06	0.92
11	81	0.72	307	0.83	0.07	0.92
11	82	0.73	212	0.83	0.06	0.92
11	83	0.74	336	0.84	0.06	0.93
11	84	0.72	367	0.83	0.06	0.92
11	85	0.72	285	0.83	0.06	0.92
11	86	0.73	406	0.84	0.05	0.93
11	87	0.72	379	0.83	0.05	0.92
11	88	0.71	326	0.83	0.05	0.93
11	89	0.72	302	0.83	0.06	0.92
11	90	0.72	300	0.83	0.06	0.92
11	91	0.72	331	0.83	0.06	0.93
11	92	0.72	362	0.83	0.06	0.93
11	93	0.71	246	0.83	0.05	0.92
11	94	0.72	335	0.83	0.07	0.92
11	95	0.72	323	0.83	0.06	0.92
11	96	0.72	274	0.83	0.05	0.92
11	97	0.71	361	0.83	0.06	0.92
11	98	0.72	378	0.83	0.06	0.92
11	99	0.71	290	0.83	0.05	0.92
11	100	0.71	341	0.83	0.05	0.92
11	101	0.72	263	0.83	0.07	0.92
11	102	0.73	293	0.84	0.05	0.93

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
11	103	0.71	359	0.83	0.06	0.92
11	104	0.73	376	0.84	0.05	0.93
11	105	0.74	334	0.84	0.05	0.93
11	106	0.73	462	0.84	0.05	0.93
11	107	0.72	377	0.84	0.05	0.93
11	108	0.73	310	0.84	0.05	0.93
11	109	0.73	381	0.84	0.04	0.93
11	110	0.73	305	0.84	0.04	0.93
11	111	0.73	473	0.84	0.05	0.93
11	112	0.73	498	0.84	0.04	0.94
11	113	0.72	464	0.83	0.05	0.93
11	114	0.73	349	0.84	0.04	0.93
11	115	0.74	310	0.84	0.05	0.93
11	116	0.73	489	0.84	0.04	0.94
11	117	0.74	484	0.85	0.05	0.94
11	118	0.73	512	0.85	0.04	0.94
11	119	0.73	509	0.85	0.03	0.94
11	120	0.74	475	0.85	0.05	0.94
12	2	0.78	35	0.84	0.09	0.92
12	3	0.77	18	0.60	0.56	0.65
12	4	0.62	77	0.71	0.20	0.77
12	5	0.73	23	0.82	0.09	0.92
12	6	0.74	48	0.82	0.09	0.89
12	7	0.68	75	0.81	0.06	0.91
12	8	0.71	48	0.80	0.10	0.88
12	9	0.76	75	0.83	0.11	0.91

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	10	0.68	87	0.79	0.09	0.88
12	11	0.68	103	0.80	0.09	0.90
12	12	0.62	23	0.78	0.06	0.85
12	13	0.67	118	0.79	0.10	0.89
12	14	0.62	130	0.77	0.08	0.87
12	15	0.64	160	0.77	0.09	0.87
12	16	0.63	50	0.78	0.08	0.86
12	17	0.64	99	0.78	0.08	0.87
12	18	0.64	170	0.77	0.10	0.86
12	19	0.63	67	0.77	0.10	0.86
12	20	0.63	180	0.76	0.11	0.85
12	21	0.65	165	0.77	0.12	0.86
12	22	0.70	152	0.79	0.12	0.87
12	23	0.67	112	0.78	0.11	0.86
12	24	0.71	201	0.77	0.17	0.86
12	25	0.73	233	0.77	0.18	0.87
12	26	0.72	237	0.78	0.16	0.87
12	27	0.73	257	0.79	0.16	0.88
12	28	0.75	151	0.80	0.16	0.88
12	29	0.77	231	0.82	0.13	0.90
12	30	0.78	150	0.81	0.16	0.90
12	31	0.78	201	0.82	0.14	0.91
12	32	0.77	264	0.82	0.13	0.90
12	33	0.78	267	0.82	0.13	0.91
12	34	0.78	246	0.82	0.14	0.91
12	35	0.79	273	0.84	0.11	0.92

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	36	0.79	242	0.84	0.10	0.92
12	37	0.77	338	0.83	0.11	0.91
12	38	0.77	9	0.88	0.00	0.95
12	39	0.79	134	0.83	0.13	0.91
12	40	0.71	228	0.81	0.08	0.90
12	41	0.79	209	0.84	0.11	0.92
12	42	0.72	329	0.83	0.07	0.91
12	43	0.72	271	0.82	0.07	0.91
12	44	0.75	7	0.87	0.00	0.96
12	45	0.73	206	0.83	0.06	0.92
12	46	0.75	3	0.87	0.00	0.96
12	47	0.73	156	0.82	0.08	0.90
12	48	0.75	10	0.88	0.00	0.97
12	49	0.76	5	0.88	0.00	0.96
12	50	0.77	6	0.89	0.00	0.97
12	51	0.70	306	0.81	0.08	0.90
12	52	0.79	8	0.89	0.00	0.97
12	53	0.79	1	0.89	0.00	0.97
12	54	0.80	3	0.90	0.00	0.97
12	55	0.82	3	0.91	0.00	0.97
12	56	0.81	6	0.90	0.00	0.97
12	57	0.79	9	0.89	0.00	0.97
12	58	0.81	3	0.90	0.00	0.97
12	59	0.71	324	0.82	0.07	0.91
12	60	0.81	4	0.91	0.00	0.97
12	61	0.82	2	0.91	0.00	0.97

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	62	0.83	2	0.92	0.00	0.97
12	63	0.73	7	0.86	0.00	0.98
12	64	0.84	7	0.92	0.00	0.98
12	65	0.81	6	0.91	0.00	0.97
12	66	0.73	339	0.83	0.07	0.91
12	67	0.82	5	0.91	0.00	0.97
12	68	0.85	8	0.92	0.00	0.99
12	69	0.85	6	0.92	0.00	0.98
12	70	0.88	3	0.94	0.00	0.99
12	71	0.90	1	0.95	0.00	0.99
12	72	0.87	1	0.93	0.00	0.99
12	73	0.86	3	0.93	0.00	0.99
12	74	0.89	7	0.94	0.00	0.99
12	75	0.86	1	0.93	0.00	0.99
12	76	0.89	3	0.94	0.00	0.99
12	77	0.83	3	0.91	0.00	0.98
12	78	0.88	1	0.94	0.00	0.99
12	79	0.91	6	0.96	0.00	0.99
12	80	0.90	5	0.95	0.00	0.99
12	81	0.89	8	0.95	0.00	0.99
12	82	0.90	3	0.95	0.00	0.99
12	83	0.89	6	0.95	0.00	0.99
12	84	0.88	1	0.94	0.00	0.99
12	85	0.89	11	0.95	0.00	0.99
12	86	0.89	1	0.94	0.00	0.99
12	87	0.89	5	0.94	0.00	0.99

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	88	0.92	4	0.96	0.00	0.99
12	89	0.89	9	0.94	0.00	0.99
12	90	0.89	4	0.94	0.00	0.99
12	91	0.91	7	0.95	0.00	0.99
12	92	0.90	6	0.95	0.00	0.99
12	93	0.90	4	0.95	0.00	0.99
12	94	0.89	8	0.95	0.00	0.99
12	95	0.91	4	0.96	0.00	0.99
12	96	0.90	4	0.95	0.00	0.99
12	97	0.90	7	0.95	0.00	0.99
12	98	0.89	1	0.95	0.00	0.99
12	99	0.91	8	0.96	0.00	0.99
12	100	0.91	8	0.95	0.00	0.99
12	101	0.91	9	0.95	0.00	0.99
12	102	0.90	10	0.95	0.00	0.99
12	103	0.91	5	0.96	0.00	0.99
12	104	0.90	3	0.95	0.00	0.99
12	105	0.90	3	0.95	0.00	0.99
12	106	0.91	4	0.96	0.00	0.99
12	107	0.92	4	0.96	0.00	0.99
12	108	0.92	2	0.96	0.00	0.99
12	109	0.93	7	0.97	0.00	1.00
12	110	0.94	4	0.97	0.00	1.00
12	111	0.92	6	0.96	0.00	1.00
12	112	0.93	4	0.96	0.00	1.00
12	113	0.95	1	0.97	0.00	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
12	114	0.96	7	0.98	0.00	1.00
12	115	0.96	7	0.98	0.00	1.00
12	116	0.96	1	0.98	0.00	1.00
12	117	0.96	2	0.98	0.00	1.00
12	118	0.97	12	0.98	0.00	1.00
12	119	0.98	4	0.99	0.00	1.00
12	120	0.97	1	0.99	0.00	1.00
13	2	0.76	6	0.53	0.70	0.63
13	3	0.92	92	0.60	0.73	0.69
13	4	0.65	236	0.56	0.53	0.56
13	5	0.64	125	0.58	0.51	0.61
13	6	0.61	307	0.50	0.61	0.44
13	7	0.97	7	0.53	0.91	0.97
13	8	0.67	2	0.52	0.63	0.55
13	9	0.70	25	0.48	0.74	0.52
13	10	0.62	332	0.51	0.62	0.51
13	11	0.80	29	0.76	0.28	0.82
13	12	0.66	357	0.53	0.62	0.56
13	13	0.78	58	0.77	0.23	0.85
13	14	0.84	50	0.83	0.18	0.91
13	15	0.79	135	0.79	0.20	0.87
13	16	0.78	143	0.80	0.18	0.87
13	17	0.80	98	0.81	0.17	0.90
13	18	0.84	38	0.84	0.16	0.92
13	19	0.82	110	0.84	0.14	0.91
13	20	0.82	106	0.84	0.14	0.93

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	21	0.84	141	0.84	0.15	0.93
13	22	0.82	89	0.84	0.14	0.92
13	23	0.83	113	0.84	0.15	0.93
13	24	0.82	160	0.82	0.18	0.90
13	25	0.85	137	0.85	0.16	0.93
13	26	0.85	227	0.85	0.15	0.92
13	27	0.83	173	0.84	0.15	0.91
13	28	0.81	213	0.83	0.14	0.91
13	29	0.80	235	0.82	0.16	0.90
13	30	0.79	258	0.81	0.18	0.89
13	31	0.79	163	0.81	0.17	0.89
13	32	0.79	208	0.82	0.16	0.89
13	33	0.80	165	0.82	0.17	0.90
13	34	0.81	164	0.83	0.16	0.90
13	35	0.77	229	0.81	0.15	0.89
13	36	0.83	203	0.86	0.12	0.93
13	37	0.82	154	0.85	0.13	0.93
13	38	0.84	186	0.86	0.12	0.93
13	39	0.84	213	0.87	0.11	0.94
13	40	0.87	344	0.88	0.11	0.95
13	41	0.87	282	0.88	0.11	0.95
13	42	0.85	271	0.87	0.10	0.94
13	43	0.87	337	0.88	0.10	0.95
13	44	0.83	348	0.86	0.11	0.93
13	45	0.84	167	0.87	0.10	0.93
13	46	0.81	303	0.86	0.10	0.93

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	47	0.81	302	0.85	0.10	0.93
13	48	0.84	236	0.88	0.08	0.95
13	49	0.82	359	0.85	0.11	0.93
13	50	0.81	191	0.85	0.11	0.93
13	51	0.81	342	0.87	0.08	0.94
13	52	0.82	279	0.87	0.09	0.94
13	53	0.84	295	0.88	0.08	0.94
13	54	0.84	242	0.87	0.09	0.94
13	55	0.83	181	0.87	0.09	0.94
13	56	0.83	346	0.87	0.09	0.94
13	57	0.83	396	0.88	0.07	0.95
13	58	0.82	347	0.87	0.07	0.95
13	59	0.83	294	0.88	0.07	0.95
13	60	0.84	335	0.89	0.05	0.96
13	61	0.83	346	0.89	0.06	0.96
13	62	0.84	291	0.89	0.06	0.95
13	63	0.84	281	0.88	0.08	0.95
13	64	0.83	361	0.89	0.05	0.96
13	65	0.83	351	0.89	0.06	0.96
13	66	0.83	358	0.88	0.06	0.96
13	67	0.83	378	0.89	0.05	0.96
13	68	0.86	437	0.90	0.06	0.97
13	69	0.85	475	0.89	0.06	0.96
13	70	0.83	392	0.89	0.06	0.96
13	71	0.84	444	0.90	0.05	0.96
13	72	0.83	354	0.88	0.06	0.96

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	73	0.84	317	0.89	0.06	0.95
13	74	0.83	325	0.89	0.04	0.96
13	75	0.83	280	0.89	0.06	0.96
13	76	0.83	447	0.89	0.04	0.96
13	77	0.83	327	0.89	0.04	0.96
13	78	0.84	295	0.88	0.07	0.96
13	79	0.83	256	0.88	0.07	0.95
13	80	0.84	357	0.89	0.05	0.96
13	81	0.84	359	0.89	0.05	0.96
13	82	0.84	296	0.89	0.05	0.96
13	83	0.83	252	0.89	0.06	0.95
13	84	0.82	280	0.89	0.05	0.96
13	85	0.84	243	0.89	0.06	0.95
13	86	0.84	307	0.89	0.06	0.96
13	87	0.83	459	0.89	0.04	0.96
13	88	0.83	240	0.89	0.05	0.96
13	89	0.82	280	0.89	0.05	0.96
13	90	0.83	467	0.90	0.04	0.96
13	91	0.83	377	0.89	0.04	0.96
13	92	0.83	401	0.90	0.04	0.96
13	93	0.84	317	0.89	0.07	0.96
13	94	0.82	406	0.89	0.04	0.96
13	95	0.82	426	0.89	0.04	0.96
13	96	0.83	414	0.90	0.03	0.96
13	97	0.82	412	0.89	0.04	0.96
13	98	0.84	372	0.89	0.06	0.96

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
13	99	0.82	500	0.89	0.04	0.96
13	100	0.83	396	0.90	0.04	0.96
13	101	0.81	484	0.88	0.05	0.96
13	102	0.83	370	0.89	0.06	0.96
13	103	0.82	489	0.89	0.04	0.96
13	104	0.82	509	0.89	0.04	0.96
13	105	0.84	408	0.89	0.06	0.96
13	106	0.82	489	0.89	0.04	0.96
13	107	0.83	435	0.90	0.04	0.96
13	108	0.84	345	0.89	0.07	0.95
13	109	0.84	445	0.89	0.05	0.96
13	110	0.85	458	0.90	0.05	0.96
13	111	0.85	415	0.90	0.05	0.96
13	112	0.84	439	0.90	0.03	0.97
13	113	0.84	506	0.90	0.04	0.96
13	114	0.86	435	0.91	0.04	0.97
13	115	0.88	530	0.92	0.04	0.98
13	116	0.89	361	0.92	0.06	0.97
13	117	0.88	617	0.92	0.03	0.98
13	118	0.89	411	0.91	0.06	0.97
13	119	0.89	311	0.92	0.05	0.97
13	120	0.88	616	0.92	0.04	0.98
14	2	0.63	1	0.67	0.30	0.71
14	3	0.58	1	0.46	0.67	0.41
14	4	0.62	13	0.48	0.66	0.69
14	5	0.91	13	0.50	0.98	0.99

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	6	0.68	18	0.52	0.64	0.75
14	7	0.70	29	0.69	0.32	0.75
14	8	0.89	15	0.50	0.89	0.83
14	9	0.72	49	0.71	0.30	0.77
14	10	0.81	1	0.63	0.56	0.68
14	11	0.78	37	0.77	0.24	0.84
14	12	0.82	29	0.81	0.21	0.88
14	13	0.86	103	0.85	0.16	0.92
14	14	0.87	70	0.86	0.15	0.93
14	15	0.88	129	0.87	0.14	0.95
14	16	0.91	105	0.90	0.11	0.96
14	17	0.89	91	0.89	0.10	0.96
14	18	0.89	138	0.90	0.10	0.96
14	19	0.87	75	0.89	0.10	0.96
14	20	0.87	57	0.89	0.10	0.96
14	21	0.89	119	0.90	0.09	0.96
14	22	0.84	105	0.88	0.08	0.96
14	23	0.82	176	0.86	0.10	0.94
14	24	0.79	181	0.84	0.11	0.92
14	25	0.81	121	0.86	0.09	0.94
14	26	0.83	169	0.86	0.11	0.94
14	27	0.82	222	0.87	0.09	0.93
14	28	0.80	198	0.86	0.09	0.92
14	29	0.83	132	0.88	0.08	0.95
14	30	0.88	158	0.90	0.07	0.97
14	31	0.82	183	0.86	0.10	0.92

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	32	0.86	189	0.89	0.09	0.95
14	33	0.89	240	0.91	0.07	0.97
14	34	0.90	116	0.93	0.05	0.98
14	35	0.89	108	0.92	0.05	0.98
14	36	0.89	133	0.92	0.04	0.98
14	37	0.85	287	0.90	0.05	0.97
14	38	0.87	228	0.91	0.05	0.97
14	39	0.87	121	0.92	0.03	0.98
14	40	0.87	206	0.92	0.04	0.98
14	41	0.88	342	0.92	0.03	0.97
14	42	0.88	296	0.93	0.03	0.98
14	43	0.89	278	0.93	0.03	0.98
14	44	0.89	180	0.93	0.03	0.98
14	45	0.88	193	0.92	0.04	0.97
14	46	0.87	204	0.92	0.03	0.97
14	47	0.88	199	0.92	0.03	0.98
14	48	0.87	300	0.91	0.05	0.97
14	49	0.87	332	0.92	0.04	0.97
14	50	0.86	431	0.91	0.05	0.96
14	51	0.87	101	0.92	0.03	0.97
14	52	0.86	154	0.91	0.03	0.97
14	53	0.87	346	0.92	0.04	0.97
14	54	0.86	261	0.92	0.03	0.98
14	55	0.87	406	0.91	0.04	0.97
14	56	0.83	324	0.89	0.05	0.95
14	57	0.87	359	0.91	0.05	0.97

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	58	0.86	231	0.92	0.02	0.97
14	59	0.84	321	0.90	0.05	0.96
14	60	0.84	352	0.89	0.05	0.96
14	61	0.84	278	0.90	0.04	0.95
14	62	0.84	250	0.90	0.05	0.95
14	63	0.85	238	0.91	0.03	0.97
14	64	0.85	159	0.92	0.02	0.97
14	65	0.86	240	0.91	0.03	0.97
14	66	0.85	417	0.91	0.03	0.97
14	67	0.85	407	0.91	0.04	0.96
14	68	0.85	494	0.91	0.04	0.97
14	69	0.84	153	0.91	0.02	0.97
14	70	0.85	370	0.91	0.04	0.97
14	71	0.84	438	0.91	0.02	0.97
14	72	0.85	257	0.91	0.02	0.97
14	73	0.85	323	0.91	0.03	0.97
14	74	0.87	150	0.92	0.04	0.97
14	75	0.85	280	0.91	0.03	0.97
14	76	0.85	300	0.91	0.04	0.97
14	77	0.87	383	0.92	0.03	0.98
14	78	0.88	361	0.93	0.02	0.98
14	79	0.84	271	0.91	0.03	0.97
14	80	0.86	380	0.91	0.03	0.97
14	81	0.84	159	0.91	0.02	0.97
14	82	0.84	448	0.90	0.03	0.96
14	83	0.85	165	0.92	0.01	0.97

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	84	0.85	482	0.92	0.02	0.98
14	85	0.84	216	0.91	0.01	0.97
14	86	0.85	265	0.91	0.03	0.97
14	87	0.86	442	0.91	0.03	0.97
14	88	0.85	566	0.91	0.03	0.97
14	89	0.84	485	0.91	0.02	0.97
14	90	0.85	421	0.91	0.03	0.97
14	91	0.84	546	0.91	0.02	0.97
14	92	0.84	487	0.91	0.02	0.97
14	93	0.84	18	0.91	0.01	0.96
14	94	0.84	18	0.91	0.02	0.96
14	95	0.86	454	0.92	0.02	0.97
14	96	0.85	239	0.92	0.01	0.98
14	97	0.85	433	0.92	0.02	0.97
14	98	0.85	16	0.91	0.02	0.96
14	99	0.85	359	0.92	0.01	0.98
14	100	0.84	19	0.91	0.01	0.96
14	101	0.85	512	0.92	0.02	0.97
14	102	0.85	588	0.91	0.03	0.97
14	103	0.84	418	0.91	0.01	0.98
14	104	0.85	448	0.91	0.03	0.97
14	105	0.85	604	0.91	0.03	0.97
14	106	0.85	558	0.91	0.03	0.97
14	107	0.86	466	0.92	0.02	0.97
14	108	0.86	634	0.92	0.02	0.97
14	109	0.86	617	0.92	0.02	0.98

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
14	110	0.89	191	0.92	0.04	0.97
14	111	0.88	401	0.93	0.02	0.98
14	112	0.89	181	0.93	0.04	0.97
14	113	0.89	216	0.94	0.02	0.98
14	114	0.89	365	0.93	0.02	0.98
14	115	0.91	311	0.94	0.02	0.98
14	116	0.91	436	0.95	0.02	0.99
14	117	0.90	383	0.95	0.01	0.99
14	118	0.90	394	0.95	0.01	0.99
14	119	0.90	45	0.94	0.03	0.98
14	120	0.91	558	0.95	0.01	0.99
15	2	0.72	27	0.70	0.31	0.76
15	3	0.85	12	0.55	0.74	0.60
15	4	0.85	14	0.56	0.74	0.57
15	5	0.80	17	0.52	0.77	0.92
15	6	0.56	77	0.61	0.35	0.65
15	7	0.76	7	0.70	0.36	0.77
15	8	0.64	29	0.65	0.33	0.71
15	9	0.79	63	0.50	0.79	0.51
15	10	0.73	223	0.60	0.52	0.64
15	11	0.94	11	0.55	0.84	0.89
15	12	0.91	10	0.54	0.83	0.88
15	13	0.62	193	0.57	0.47	0.62
15	14	0.63	247	0.61	0.41	0.67
15	15	0.49	66	0.51	0.47	0.52
15	16	0.51	58	0.53	0.44	0.54

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	17	0.93	149	0.51	0.92	0.54
15	18	0.75	78	0.74	0.27	0.81
15	19	0.57	283	0.57	0.44	0.62
15	20	0.66	1	0.50	1.00	1.00
15	21	0.77	44	0.74	0.29	0.81
15	22	0.78	148	0.78	0.23	0.85
15	23	0.78	97	0.79	0.21	0.87
15	24	0.85	158	0.83	0.20	0.89
15	25	0.83	96	0.84	0.14	0.92
15	26	0.88	196	0.88	0.12	0.95
15	27	0.84	171	0.86	0.12	0.93
15	28	0.87	135	0.88	0.12	0.95
15	29	0.87	93	0.88	0.11	0.95
15	30	0.89	211	0.91	0.07	0.97
15	31	0.90	98	0.92	0.05	0.98
15	32	0.88	174	0.92	0.04	0.98
15	33	0.91	216	0.93	0.04	0.98
15	34	0.89	169	0.93	0.03	0.97
15	35	0.92	159	0.94	0.04	0.99
15	36	0.90	223	0.94	0.02	0.99
15	37	0.90	265	0.93	0.03	0.99
15	38	0.93	293	0.96	0.01	0.99
15	39	0.94	254	0.96	0.01	1.00
15	40	0.92	226	0.95	0.02	0.99
15	41	0.92	194	0.95	0.01	0.99
15	42	0.96	225	0.97	0.02	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	43	0.96	258	0.98	0.01	1.00
15	44	0.97	312	0.98	0.00	1.00
15	45	0.98	305	0.99	0.00	1.00
15	46	0.97	219	0.98	0.01	1.00
15	47	0.97	274	0.99	0.00	1.00
15	48	0.97	265	0.98	0.01	1.00
15	49	0.99	543	0.99	0.00	1.00
15	50	0.98	458	0.99	0.00	1.00
15	51	0.98	411	0.99	0.00	1.00
15	52	0.98	321	0.99	0.00	1.00
15	53	0.99	368	0.99	0.00	1.00
15	54	0.97	290	0.98	0.00	1.00
15	55	0.98	444	0.99	0.00	1.00
15	56	0.99	463	0.99	0.00	1.00
15	57	0.99	348	0.99	0.00	1.00
15	58	0.99	280	0.99	0.00	1.00
15	59	0.99	248	0.99	0.00	1.00
15	60	0.99	523	0.99	0.00	1.00
15	61	0.98	504	0.99	0.00	1.00
15	62	0.99	428	0.99	0.00	1.00
15	63	0.99	450	1.00	0.00	1.00
15	64	0.99	405	1.00	0.00	1.00
15	65	0.98	506	0.99	0.00	1.00
15	66	0.99	722	1.00	0.00	1.00
15	67	0.99	540	1.00	0.00	1.00
15	68	0.99	425	1.00	0.00	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	69	0.99	365	1.00	0.00	1.00
15	70	0.99	593	0.99	0.00	1.00
15	71	0.98	516	0.99	0.00	1.00
15	72	0.99	482	0.99	0.00	1.00
15	73	0.98	405	0.99	0.00	1.00
15	74	0.99	655	0.99	0.00	1.00
15	75	0.99	590	0.99	0.00	1.00
15	76	0.98	777	0.99	0.00	1.00
15	77	0.99	360	0.99	0.00	1.00
15	78	0.99	571	0.99	0.00	1.00
15	79	0.99	409	0.99	0.00	1.00
15	80	0.99	496	1.00	0.00	1.00
15	81	1.00	53	1.00	0.00	1.00
15	82	0.99	346	1.00	0.00	1.00
15	83	0.98	625	0.99	0.00	1.00
15	84	0.99	565	1.00	0.00	1.00
15	85	0.99	773	1.00	0.00	1.00
15	86	0.99	763	1.00	0.00	1.00
15	87	0.99	810	0.99	0.00	1.00
15	88	0.99	599	0.99	0.00	1.00
15	89	0.99	495	1.00	0.00	1.00
15	90	0.99	469	1.00	0.00	1.00
15	91	0.99	938	0.99	0.00	1.00
15	92	0.99	641	0.99	0.00	1.00
15	93	0.99	655	1.00	0.00	1.00
15	94	0.98	861	0.99	0.00	1.00

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Table S3 – *Continued from previous page*

Fault No	Sample Bin	Fault Detection Rate	Optimal Feature Subset Size	Model Accuracy	False Alarm Rate	Area Under the Curve
15	95	0.98	785	0.99	0.00	1.00
15	96	0.99	448	0.99	0.00	1.00
15	97	0.99	788	0.99	0.00	1.00
15	98	0.99	717	0.99	0.00	1.00
15	99	0.99	653	0.99	0.00	1.00
15	100	0.99	684	0.99	0.00	1.00
15	101	0.99	672	0.99	0.00	1.00
15	102	0.98	135	0.99	0.00	1.00
15	103	0.99	628	0.99	0.00	1.00
15	104	0.99	721	0.99	0.00	1.00
15	105	0.98	421	0.99	0.00	1.00
15	106	0.99	692	0.99	0.00	1.00
15	107	0.99	722	1.00	0.00	1.00
15	108	1.00	653	1.00	0.00	1.00
15	109	1.00	523	1.00	0.00	1.00
15	110	1.00	575	1.00	0.00	1.00
15	111	1.00	816	1.00	0.00	1.00
15	112	1.00	667	1.00	0.00	1.00
15	113	1.00	917	1.00	0.00	1.00
15	114	1.00	502	1.00	0.00	1.00
15	115	1.00	388	1.00	0.00	1.00
15	116	1.00	235	1.00	0.00	1.00
15	117	1.00	222	1.00	0.00	1.00
15	118	1.00	521	1.00	0.00	1.00
15	119	1.00	235	1.00	0.00	1.00
15	120	1.00	193	1.00	0.00	1.00