

Analysis Type	Program	Datasets
Cell Identity	SingleR (Aran D, et al. 2019) dynamicTreeCut (Langerfelder P, et al. 2008) schHCL (Han X, et al. 2020) CIBERSORT (bulk RNA seq) (Newman AM, et al. 2015)	HCL (Han X, et al. 2020)
Gene Ontology	EnrichR (Chen EY, et al. 2013, Kuleshov MV, et al. 2016) Metascape (Zhou Y, et al. 2019) clusterProfiler (Yu G, et al. 2012) GSVA (Hänzelmann S, et al. 2013) WebGestalt (Wang J, et al. 2017)	MSigDB (Subramanian A, et al. 2005) Hallmark (Liberzon A, et al. 2015) REACTOME (Croft D, et al. 2014) KEGG HAdb (Tong T, et al. 2021)
Cell State	SCENIC (Aibar S, et al. 2017) CellCycleScoring (Butler A, et al. 2018)	
Intercellular Interaction	FANTOM5 (Ramilowski JA, et al. 2015) STRING (Szklarczyk D, et al. 2019) CellPhoneDB (Vento-Tormo R, et al. 2018, Elfremova M, et al. 2020) CellChat (Jin S, et al. 2021)	
Trajectory	Monocle2/3 (Trapnell C, et al. 2014) Slingshot (Street K, et al. 2018) SCORPIUS (Cannoodt R, et al. 2016) MarkovHC (Wang Z, et al. 2022) RNA velocity (La Manno, et al. 2018)	
Chromosomal Variation	inferCNV (Patel AP, et al. 2014, Wang R, et al. 2021) LIAYSON (Andor N, et al. 2020) VarTrix (Kim J, et al. 2022) GISTIC2 (Mermel CH, et al. 2011) Mutect2 (Cibulskis K, et al. 2013) CopyKAT (Gao R, et al. 2021)	
Survival	survminer (Zhang P, et al. 2019) KaplanMeier Plotter (Györfy B, et al. 2010)	
Cancer Gene Expression	CIPHER (Wu X, et al. 2008) CancerSEA (Yuan H, et al. 2019) GEPIA2 (Tang Z, et al. 2019) UCSC Xena (Goldman M et al. 2020)	TCGA STAD (Liu J, et al. 2018) Firebrowse (Deng M, et al. 2017) PanCanAtlas