

S2: Resources impact of the augmentation layer

Javier Pérez de Frutos^{1*}, André Pedersen^{1,2,3}, Egidijus Pelanis⁴, David Bouget¹, Shanmugapriya Survarachakan⁵, Thomas Langø^{1,6}, Ole-Jakob Elle⁴, and Frank Lindseth⁵

¹Department of Health Research, SINTEF, Trondheim, Norway

²Department of Clinical and Molecular Medicine, Norwegian University of Science and University (NTNU), Trondheim, Norway

³Clinic of Surgery, St. Olavs hospital, Trondheim University Hospital, Trondheim, Norway

⁴Intervention Centre, Oslo University Hospital, Oslo, Norway

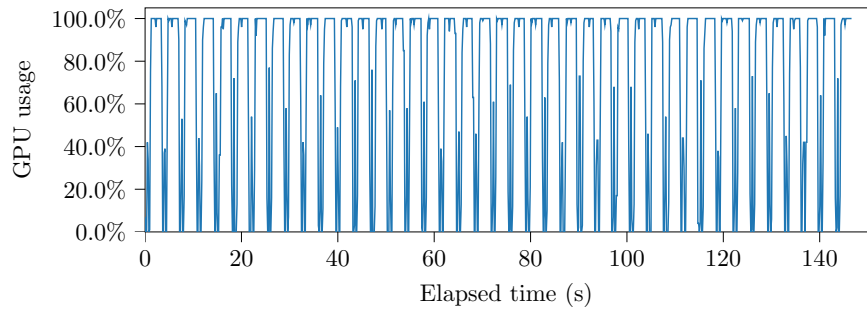
⁵Department of Computer Science, Norwegian University of Science and University (NTNU), Trondheim, Norway

⁶Research Department, Future Operating Room, St. Olavs hospital, Trondheim University Hospital, Trondheim, Norway

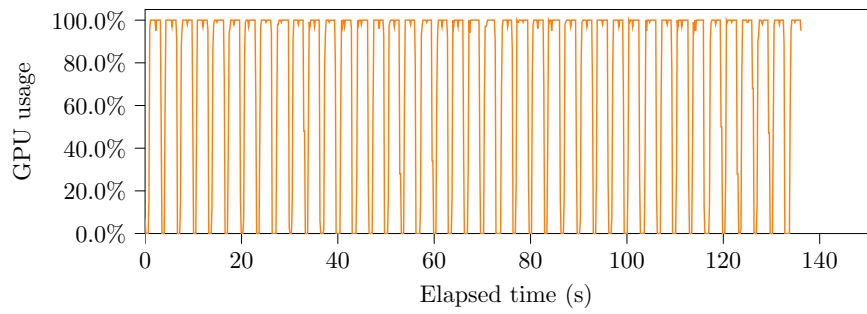
*Corresponding author: Javier Pérez de Frutos, javier.perezdefrutos@sintef.no

Document description

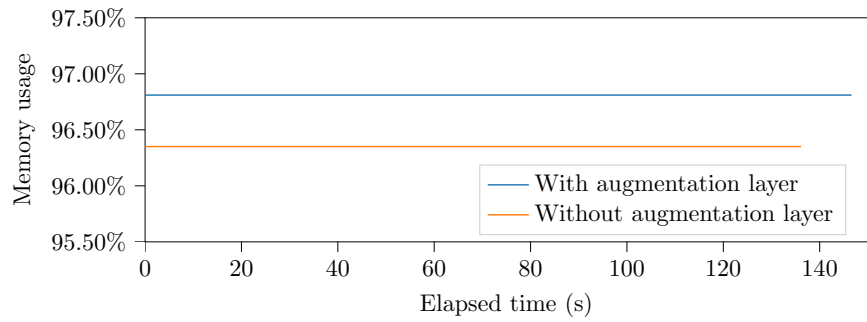
This document contains details on the GPU resources usage by the proposed augmentation layer. Figs. Aa and Ab which show the GPU usage during one training epoch. The relative increase in time is of 7.7% (ca. 10.5 s). Fig. Ac shows the memory usage on the GPU during one training epoch with and without using the augmentation layer. The increase in memory allocation is of 0.47% (ca. 74 MB / 16 GB).



(a) GPU usage with augmentation layer



(b) GPU usage without augmentation layer



(c) Memory usage with (blue) and without using the augmentation layer (orange)

Figure A. Impact of the augmentation layer on the GPU resources during one training epoch.