

Thesis Changes Log

Name of Candidate: Viktoriia Chekalina

PhD Program: Computational and Data Science and Engineering

Title of Thesis: Computationally efficient Natural Language Processing methods using tensor representations

Supervisor: Associate Professor Alexander Panchenko

The thesis document includes the following changes in answer to the external review process.

Papers

Chekalina, V, Novikov G., Gusak G., Oseledets I., Panchenko A. (2023): “Efficient GPT Model Pre-training using Tensor Train Matrix Representation” and

Chekalina, V, Pletenev, S., Moskovskiy D., Seleznev M., Panchenko, A. (2023): “A Computational Study of Matrix Decomposition Methods for Compression of Pre-trained Transformers.”
were accepted to PACLIC’37 conference.

According to the reviewers' notes, we proofread the Thesis once again to fix typos and grammar spellings.

I completed experiments in Table 5.4 and added a corresponding description to the text, combined Tables 3.1 and 3.2, replotted Figure 6.5.

I also removed all paper artefacts from the text and fix the caption of Table 6.18. The explanation of Chapter 3 is added; the size of corpora in Chapter 5 is now defined in tokens.

I also provided specific links to models in the Huggiface repository.