Homework 8: Deep Learning

Out June 27; Due July 3, 12 a.m. Kristian Kersting, Dominik Hintersdorf, Quentin Delfosse {kersting, dominik.hintersdorf, quentin.delfosse}@cs.tu-darmstadt.de

Transformers.

Models based on Transformers are the current sensation of NLP, but are also more and more used in Computer Vision. Hugging Face's Transformers library provides all SOTA models (like BERT, GPT2, T5, RoBERTa, ViT, CLIP, etc.) which can be used with the common deep learning frameworks.

Popular tasks to solve with such models are, among others, text classification, text generation, Language modeling, token classification, question-answering, multiple choice tasks, translation, and summarization but, as mentioned, also vision tasks like image classification.

Your homework, is to pick one of these tasks or any other task and present how to solve it with the provided pre-trained transformer models¹ from Hugging Face². You may have to fine-tune the model. Your presentation should include the task description, a justification for the model choice with a description of the model and some results. Submit either a PDF, PDF slides, or a Jupyter notebook with your presentation.

¹https://huggingface.co/models

²https://huggingface.co/