LLM-for-code-intelligence

Fine Tuning Large Language Models for Code Intelligence - Msc Project

Todo List 19/06 - 25/06

- [x] Document Current Challenges, Progress and Next Steps to progress\README.md
- [x] Identify Relevant Literature
- [x] Read Identified Literature and summarise to lit-rev\README.md (Ongoing)
- [x] Identify Relevant Datasets
- [x] Document Identified Datasets to lit-rev\README.md
- [x] Identify Relevant Evaluation Metrics
- [x] Document Identified Evaluation Metrics to lit-rev\README.md
- [x] Setup the code generation environment
- [x] Document the code generation environment setup
- [x] Setup the functional evaluation environment
- [x] Document the functional evaluation environment setup
- [x] Setup the similarity evaluation environment
- [x] Document the similarity evaluation environment setup
- [x] Setup the Full Fine Tuning environment
- [x] Document the Full Fine Tuning environment setup
- [x] Setup the Parameter Efficient Fine Tuning environment
- [x] Document the Parameter Efficient Fine Tuning environment setup
- [] Setup the Knowledge Distillation environment
- [] Document the Knowledge Distillation environment setup

Todo List 26/06 - 02/07

- [x] Try to expirment with the Learning Rate
- [] Try to expirment with the Number of Layers to Freeze
- [x] Try to expirment with using a sample of the dataset processed and downloaded from the cloud
- [x] correlation between evaluation metrics and the number of fine-tuning steps
- [x] Smimlar Setup for the Parameter Efficient Fine Tuning and Full Fine Tuning
- [] Documnetaion of progress and next steps

Fine-tuning CodeGen on TheStack

Colab: Open in Colab

Huggingface: Share to community

Weights & Biases: Visualize in W&B