YUZE JIANG

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EDUCATION

Shanghai Jiao Tong University (B. Eng.) **Expected Jul. 2023**
Major: Software Engineering *Shanghai, China*
Overall GPA: 3.6/4.3
GPA Ranking for Junior and Senior Year: Top 2% (2/96)

PUBLICATIONS

- Nan Cui, **Yuze Jiang**, Xiaodong Gu, Beijun Shen. 2022. Zero-Shot Program Representation Learning. 30th International Conference on Program Comprehension (ICPC'2022), May 16–17, 2022, Virtual Event, USA. ACM, New York, NY, USA, 11 pages. https://doi.org/10.1145/3524610.3527888
- Yuetian Mao, Chengcheng Wan, **Yuze Jiang**, Xiaodong Gu. 2023. Self-Supervised Query Reformulation for Code Search. 45th International Conference on Software Engineering (ESEC/FSE'2023). Submitted.
- Another one about **Interpretability for Pretrained Language Model** in preparation.

RESEARCH EXPERIENCE

Shanghai Jiao Tong University *Shanghai, China*
Code Change Representation Learning (Independent) *Oct. 2022 - Present*
- Aim to learn the semantic representation of code change based on PLMs with novel pre-training objectives;
- Aim to validate our approach on tasks such as just-in-time defect prediction and identify lines (i.e., defective lines) that are associated with defect-introducing commit.

Dartmouth College New Hampshire, America
Interpretability for Pretrained Language Model *Jun. 2022 - Present*
- Probed the hidden states of self-attention from the perspective of linguistics in PLMs such as BERT;
- In charge of implementing the framework for probing how each attention head interacts with syntactic features such as dependency relation, part of speech, and named entity based on slot-filling performance.

Shanghai Jiao Tong University *Shanghai, China*
Self-Supervised Query Reformulation for Code Search *Dec. 2021 - Jul. 2022*
- A self-supervised approach for query reformulation, which formulates query expansion as a masked query completion task with T5 by learning knowledge on an unlabeled query corpus;
- In charge of implementing the Code Question Answering engine based on CodeBERT and validating the generalization ability of our approach on this engine.

Shanghai Jiao Tong University *Shanghai, China*
Zero-Shot Program Representation Learning *Sept. 2021 - Jan. 2022*
- A novel approach for zero-shot program representation learning via prompt tuning based on CodeBERT;
- In charge of implementing baseline models(i.e., CodeBERT and RoBERTa) on our dataset and evaluating them on the Code Clone Detection task.

AWARDS

Silver Medal for NOI (China's National Olympiad in Informatics, an algorithmic programming contest, 192 out of 30000)

SKILLS

Programming: Python, C, C++, Java, C#
Algorithm: Practiced over 1000 algorithm problems
NLP (ML) Libraries: PyTorch, Hugging Face, Stanza, NLTK, Scikit-learn

COURSE PROJECTS

Developed 15 course projects in college, including ML apps, video games, websites, etc. Here are 2 samples.

AI Poetry Generation (Group Leader) Oct. 2021 - Dec. 2021

- *Developed an RNN-LSTM model for poetry generation using PyTorch.*

Deep Reinforcement Learning AI for Video Game (Group Leader) Jul. 2021 - Sept. 2021

- *Devised a curriculum-based hierarchical AI based on Double-DQN for a fighter game using TensorFlow Agents.*