Xiang LIU

Homepage: https://dominic789654.github.io/
Google Scholar: VtK5lwUAAAAJ
Email: xliu886@connect.hkust-gz.edu.cn
Mobile: +86-15617865777

Education

- **The Hong Kong University of Science and Technology (Guangzhou)** — Guangzhou, CHINA
  *PhD in DSA Thrust, supervised by **Professor Xiaowen Chu*** — *Sep 2023 - Aug 2027*
- **The University of Hong Kong** — Hong Kong SAR, CHINA
  Master of Science(MSc) in Computer Science — *Sep 2022 - Aug 2023*
- **George Mason University** — VA, USA
  Bachelor of Science in Computer Science; GPA: 3.71/4.0 — *Aug 2018 - Aug 2022*

  Honors/Awards: *Dean's List (2018-2020)*

  Courses: *Natural Language Processing, Visual Computing, Data Structures, Database Concepts*

Selected Research

- **LISA: Layerwise Importance Sampling for Memory-Efficient Large Language Model Fine-Tuning**
  NeurIPS 2024
  - Rui Pan*,**Xiang Liu***, Shizhe Diao, Renjie Pi, Jipeng Zhang, Chi Han, Tong Zhang
  - Parameter Efficient Fine-tuning, Layer-wise Optimization, GPU Memory Optimization
- **Should We Really Edit Language Models? On the Evaluation of Edited Language Models**
  NeurIPS 2024
  - Qi Li*, **Xiang Liu***, Zhenheng Tang, Peijie Dong, Zeyu Li, Xinglin Pan, Xiaowen Chu
  - Model Editing, Benchmark, Model Robustness
- **LongGenBench: Long-context Generation Benchmark**
  EMNLP Findings 2024
  - **Xiang Liu**, Peijie Dong, Xuming Hu, Xiaowen Chu
  - Long-context Generation, Long-context LLMs, Logical Coherence

Experience

- **NYU Center for Data Science** — NY, USA
  *Visiting Student **Supervisor: Prof. Eunsol Choi*** — *July 2025 - Jan 2026*
- **HKUST Statistics and Machine Learning Research Group** — HK,CHINA
  *Research Intern **Supervisor: Prof. Tong Zhang*** — *Dec 2022 - Aug 2023*
  - Proposed **LISA: Layerwise Importance Sampling for Memory-Efficient Large Language Model Fine-Tuning**, a novel algorithm for efficient fine-tuning of LLMs, accepted at *NeurIPS 2024*.
  - Contributed to the LMFlow, a framework that allows fine-tuning and deploying personalized LLMs with minimal cost and effort. And focused on fine-tuning Large Language Models, including LLaMa, Bloom and Vicuna.
  - Conducted research on the Chain-of-thought (COT) method to enhance Large Language Models' logical ability.
- **Baidu Research Cognitive Computing Lab** — Beijing,CHINA
  Research Intern — *Dec 2021 - June 2022*
  - Worked on dependency parsing using the Open Information Annotation (OIA) method to convert sentences into directed acyclic graphs (DAGs).
  - Enhanced the performance of the OIA method for Chinese sentences by integrating node type and edge type specific to Chinese OIA, achieving parity with English OIA.

Competitions

- **Kaggle — Feedback Prize - Predicting Effective Arguments Competition** — Jun 2022 - Aug 2022
  Team Leader — Silver Medal (Top 2%)
  - Developed baseline code, and designed various data preprocessing strategies, and model structures.
  - Implemented token classification instead of sequence classification, boosting rank and saving time on training and inference. Acquired proficiency in using Transformers training API.

Professional Skills

- **Languages**: English, Mandarin
- **Computing Skills**: PyTorch, Git, Linux