Xiao Liang

Email | Github | Website | Linkedin | Google Scholar

Education

University of California, Los Angeles (UCLA) *Sep. 2025 - Present*

Ph.D | Advisor: **Kai-Wei Chang**, **Ying Nian Wu**

Tsinghua University (THU) *Sep. 2022 - Jun. 2025*

M.Sc. | *Data Science and Information Technology*

Sun Yat-sen University (SYSU) *Sep. 2018 - Jun. 2022*

B.Sc. | *Electronic Information Science and Technology*

Employment & Experience

Microsoft AI Superintelligence *Jun. 2026 - Sep. 2026*

Mentor: Dr. Yeyun Gong, Dr. Paul Mineiro, Dr. Weizhu Chen

- Self-improving coding agents by generating more compact, higher-quality trajectories.

Microsoft Research Asia & CoreAI *Nov. 2023 - Aug. 2025*

Research Intern (in person), Beijing, China

Mentor: Dr. Yeyun Gong, Dr. Yelong Shen, Dr. Weizhu Chen

- Pre-training and continual learning for large language models (LLMs).
- Data-centric reinforcement learning for enhancing LLM reasoning.

Tencent Artificial Intelligence Lab (AI Lab, NLP) *Mar. 2023 - Sep. 2023*

Mentor: Dr. Pengyu Cheng *Shenzhen, China*

- Utilizing reinforcement learning for long sequence modeling in Transformers.
- Dialog generation and task-specific instruction data generation.

Selected Publications

- [1] **Xiao Liang**, other SI2CA contributors. *(Self-Improving)^2 Coding Agents: Curating High-Quality Trajectories via Recursive Self-Improvement*. **Technical Report**. [Paper] [Code] [Page]
- [2] **Xiao Liang***, Zhong-Zhi Li*, Yeyun Gong, Yelong Shen, Ying Nian Wu, Zhijiang Guo, Weizhu Chen. *Beyond Pass@1: Self-Play With Variational Problem Synthesis Sustains RLVR*. **ICLR 2026**. [Paper] [Code] [Page]
- [3] **Xiao Liang***, Zhong-Zhi Li*, Yeyun Gong, Yang Wang, Hengyuan Zhang, Yelong Shen, Ying Nian Wu, Weizhu Chen. *SwS: Self-aware Weakness-driven Problem Synthesis in Reinforcement Learning for LLM Reasoning*. **NeurIPS 2025**. [Paper] [Code] [Page]
- [4] **Xiao Liang**, Zhong-Zhi Li, Zhenghao Lin, Eric Hancheng Jiang, Hengyuan Zhang, Yelong Shen, Kai-Wei Chang, Ying Nian Wu, Yeyun Gong, Weizhu Chen. *Training LLMs for Divide-and-Conquer Reasoning Elevates Test-Time Scalability*. **ACL 2026 Main**. [Paper] [Code]

- [5] **Xiao Liang***, Xinyu Hu*, Simiao Zuo, Yeyun Gong, Qiang Lou, Yi Liu, Shao-Lun Huang, Jian Jiao. *Task Oriented In-Domain Data Augmentation*. **EMNLP 2024 Main**. [Paper]
- [6] Zhong-Zhi Li*, **Xiao Liang***, Zihao Tang, Lei Ji, Peijie Wang, Haotian Xu, Xing W, Haizhen Huang, Weiwei Deng, Yeyun Gong, Zhijiang Guo, Xiao Liu, Fei Yin, Cheng-Lin Liu. *TL;DR: Too Long, Do Re-weighting for Efficient LLM Reasoning Compression*. **ACL 2026 Main**. [Paper] [Code]
- [7] Yi Cheng, **Xiao Liang**, Yeyun Gong, Wen Xiao, Song Wang, Yuji Zhang, Wenjun Hou, Kaishuai Xu, Wenge Liu, Wenjie Li, Jian Jiao, Qi Chen, Peng Cheng, Wayne Xiong. *Integrative Decoding: Improve Factuality via Implicit Self-consistency*. **ICLR 2025**. [Paper] [Code]
- [8] Jiawen Xie, Pengyu Cheng, **Xiao Liang**, Yong Dai, Nan Du. *Chunk, Align, Select: A Simple Long-sequence Processing Method for Transformers*. **ACL 2024 Main**. [Paper] [Code]

(* equal contribution; see my **Google Scholar** profile for the full list)

Awards and Honors

- Graduate Dean's Scholar Award (GDSA) of UCLA, Amount: $14,500. *Sep. 2025*
- Outstanding Master Graduate Thesis of Tsinghua University. *May 2025*
- Second Prize Scholarship of Tsinghua University (top 10%). *2023 - 2024*
- Outstanding Graduate Thesis of Sun Yat-sen University (top 5%). *Jun. 2022*
- Outstanding Graduate Student of Sun Yat-sen University (top 10%). *Jun. 2022*
- Second Prize Scholarship of Sun Yat-sen University (top 15%) for 3 times. *2019 - 2022*

Skills

Programming Languages: Python | Shell | LATEX | C++/C | Claude Code | Codex

Programming Tools: Git | PyTorch | Docker | Linux Ops | Vim

English Skills: Toefl 102