TIANJIE ZHANG

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA   08/2025 – 12/2026 (expected)
Master of Science in Machine Learning – Applied Study

Zhejiang University, Hangzhou, China   09/2021 – 06/2025
B.Eng. in Computer Science and Technology (with honors), GPA: 3.98/4.00, Rank: 9/113

EXPERIENCE

Sea AI Lab   Singapore (remote)
Research Associate; Advisors: Dr. Min Lin and Dr. Longxu Dou   03/2025 – 08/2025
- Developed large language model agents capable of operating computers through the terminal interface; public release expected December 2025.
- Designed agent scaffolding and built scalable pipelines for training-data collection.
- Established the software-engineering (SWE) environment to support agent evaluation.

Tsinghua University   Beijing, China
Research Intern; Advisors: Prof. Jie Tang and Prof. Yuxiao Dong   01/2024 – 07/2024
- Developed VisualAgentBench, a systematic benchmark for evaluating large multimodal models (LMMs) as visual foundation agents across 5 vision-centric tasks in 3 scenarios; set up 2 embodied planning tasks and delivered the LMM agent pipeline on them.
- Collected over 1,000 agent trajectories for behavior cloning, extensively evaluated 9 proprietary LMMs as well as 9 open-sourced LMMs for benchmarking.
- Analyzed agent behaviors (high-level planning & vision-language grounding), surfacing recurrent failure modes and evaluation insights.

Zhejiang University   Hangzhou, China
Research Assistant; Advisor: Prof. Yang Yang   03/2023 – 11/2023
- Benchmarked contemporary large language models (LLMs) on fundamental graph reasoning tasks (e.g., shortest path) and empirically demonstrated consistent underperformance.
- Proposed GraphLLM, a framework that integrates a graph-learning module with LLMs to enhance graph reasoning, achieving an average accuracy improvement of 54.44% across four fundamental tasks.

PUBLICATIONS AND PREPRINTS

* denotes equal contribution.
- Xiao Liu*, **Tianjie Zhang***, Yu Gu*, Iat Long Iong, Yifan Xu, Xixuan Song, Shudan Zhang, Hanyu Lai, Xinyi Liu, Hanlin Zhao, Jiadai Sun, Xinyue Yang, Yu Yang, Zehan Qi, Shuntian Yao, Xueqiao Sun, Siyi Cheng, Qinkai Zheng, Hao Yu, Hanchen Zhang, Wenyi Hong, Ming Ding, Lihang Pan, Xiaotao Gu, Aohan Zeng, Zhengxiao Du, Chan Hee Song, Yu Su, Yuxiao Dong, and Jie Tang, "VisualAgentBench: Towards Large Multimodal Models as Visual Foundation Agents", in *ICLR 2025* (Cited by 53), [PDF] [Code: ☆230]
- Ziwei Chai*, **Tianjie Zhang***, Liang Wu, Kaiqiao Han, Xiaohai Hu, Xuanwen Huang, and Yang Yang, "GraphLLM: Boosting Graph Reasoning Ability of Large Language Model", in *arXiv 2023.10* (Cited by 144), [PDF] [Code: ☆112]
- Ziwei Chai, Guoyin Wang, Jing Su, **Tianjie Zhang**, Xuanwen Huang, Xuwu Wang, Jingjing Xu, Jianbo Yuan, Hongxia Yang, Fei Wu, and Yang Yang, "An Expert is Worth One Token: Synergizing Multiple Expert LLMs as Generalist via Expert Token Routing", in *ACL 2024*, [PDF][Code]

SELECTED AWARDS

- Outstanding Graduates of Zhejiang University   2025
- First Prize in National Olympiad in Informatics in Provinces (NOIP)   2019

SKILLS

Programming Languages: Python, C, C++, Bash
Tools and Frameworks: PyTorch, Git, Docker, LaTeX, SQL