

Tengxiao Liu

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Education

University of California, Santa Barbara <i>Ph.D., Computer Science</i> Advisor: Prof. William Wang	Sep 2024 - Present <i>Santa Barbara, CA</i>
Fudan University <i>Master of Science, Computer Science</i> Advisor: Prof. Xipeng Qiu	Sep 2021 - Jun 2024 <i>Shanghai, China</i>
Xi'an Jiaotong University <i>Bachelor of Engineering, Honors Program (Computer Science), Special Gifted Young Class</i> GPA: 91.92/100, Ranking: 2/32	Sep 2017 - Jun 2021 <i>Xi'an, China</i>
University of California, Berkeley <i>Berkeley International Study Program (Math & Computer Science)</i> GPA: 4.0/4.0	Jan 2020 - May 2020 <i>Berkeley, CA</i>

Experience

Google Cloud AI Research <i>Advisor: Dr. Zifeng Wang</i>	Jun 2025 - Oct 2025 <i>Sunnyvale, CA</i>
<ul style="list-style-type: none">• Student Researcher. Worked on budget-constrained tool-call agents, proposed budget-aware tool-use agent scaling.	
AWS AI <i>Advisor: Dr. Qipeng Guo, Prof. Yue Zhang, Prof. Zheng Zhang</i>	Mar 2021 - Aug 2024 <i>Shanghai, China</i>
<ul style="list-style-type: none">• Research intern. Worked on building systems that can perform complex reasoning tasks, covering commonsense, math, logical and symbolic reasoning.	
University of California, San Francisco <i>Advisor: Prof. Jae Ho Sohn</i>	Feb 2020 - Mar 2021 <i>San Francisco, CA</i>
<ul style="list-style-type: none">• Big Data in Radiology lab. Proposed Radiology BERT, which can identify speech recognition (SR) errors and suggest corrections in radiology reports.	

Publications

- **Budget-Aware Tool-Use Enables Effective Agent Scaling**
Tengxiao Liu, Zifeng Wang, Jin Miao, I-Hung Hsu, Jun Yan, Jiefeng Chen, Rujun Han, Fangyuan Xu, Yanfei Chen, Ke Jiang, Samira Daruki, Yi Liang, William Yang Wang, Tomas Pfister, Chen-Yu Lee
Preprint.
- **WildSci: Advancing Scientific Reasoning from In-the-Wild Literature**
Tengxiao Liu, Deepak Nathani, Zekun Li, Kevin Yang, William Yang Wang
NeurIPS 2025 AI4Sci Workshop
- **Can Language Models Learn to Skip Steps?**
Tengxiao Liu, Qipeng Guo, Xiangkun Hu, Jiayang Cheng, Yue Zhang, Xipeng Qiu, Zheng Zhang
NeurIPS 2024

- **ECON: On the Detection and Resolution of Evidence Conflicts**
Jiayang Cheng, Qianqian Zhuang, Chunkit Chan, Lin Qiu, Tianhang Zhang, **Tengxiao Liu**, Yangqiu Song, Yue Zhang, Pengfei Liu, Zheng Zhang
EMNLP 2024
- **Inference-Time Decontamination: Reusing Leaked Benchmarks for Large Language Model Evaluation**
Qin Zhu, Qinyuan Cheng, Runyu Peng, Xiaonan Li, Ru Peng, **Tengxiao Liu**, Xipeng Qiu, Xuanjing Huang
EMNLP 2024 findings
- **Full Parameter Fine-tuning for Large Language Models with Limited Resources**
Kai Lv, Yuqing Yang, **Tengxiao Liu**, Qinghui Gao, Qipeng Guo, Xipeng Qiu
ACL 2024 oral
- **Plan, Verify and Switch: Integrated Reasoning with Diverse X-of-Thoughts**
Tengxiao Liu, Qipeng Guo, Yuqing Yang, Xiangkun Hu, Yue Zhang, Xipeng Qiu, Zheng Zhang
NeurIPS 2023 MATH-AI workshop
EMNLP 2023
- **CoLLiE: Collaborative Training of Large Language Models in an Efficient Way**
Kai Lv, Shuo Zhang, Tianle Gu, Shuhao Xing, Jiawei Hong, Keyu Chen, Xiaoran Liu, Yuqing Yang, Honglin Guo, **Tengxiao Liu**, Yu Sun, Qipeng Guo, Hang Yan, Xipeng Qiu
EMNLP 2023 demo
- **RLET: A Reinforcement Learning Based Approach for Explainable QA with Entailment Trees**
Tengxiao Liu, Qipeng Guo, Xiangkun Hu, Yue Zhang, Xipeng Qiu, Zheng Zhang
EMNLP 2022
- **Application of a Domain-specific BERT for Detection of Speech Recognition Errors in Radiology Reports**
Gunvant R. Chaudhari, **Tengxiao Liu**, Timothy L. Chen, Gabby B. Joseph, Maya Vella, Yoo Jin Lee, Thienkhai H. Vu, Youngho Seo, Andreas M. Rauschecker, Charles E. McCulloch, Jae Ho Sohn
Radiology: Artificial Intelligence, 2022

Awards

- Academic Excellence Fellowship, UCSB, 2024
- Shanghai Outstanding Graduate, Shanghai, 2024
- Second Prize Scholarship, Fudan University, 2023
- Academic Excellence Scholarship, Fudan University, 2022
- Outstanding Graduate, XJTU, 2021
- Outstanding Students (Dean's List), XJTU, 2018/2019/2020

Skills

- **Professional Services:** Reviewer for ICML'25, ICLR (25-26), ARR'25, NeurIPS (24-25), ARR'24
- **Teaching Assistant:** Introduction to Artificial Intelligence, UCSB Undergrad Course, Spring 2025
Database Systems Designs, Fudan Undergrad Course, Fall 2022
- **Language Proficiency:** TOEFL - 113 (S:29)