Litu Ou

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EDUCATION

University of Edinburgh
PhD in Computer Science (Advised by Prof. Mirella Lapata)   Sep 2025 - Present
BSc (Hons) in Artificial Intelligence and Computer Science with Distinction   Sep 2019 - May 2024

RESEARCH INTEREST

Large Language Models • Natural Language Processing • Machine Learning

-Long Context LLMs	-Summarization & Evaluation	-Long Horizon Task-Solving	-Tool Using
-Multi-Agent Systems	-Agentic Reinforcement Learning	-Synthetic Data Generation	-Agentic RAG

PUBLICATIONS

- **Specializing Smaller Language Models towards Multi-Step Reasoning** (*ICML 2023 OralPoster*)
  Yao Fu, Hao Peng, **Litu Ou**, Ashish Sabharwal, Tushar Khot

- **Chain-of-Thought Hub: A Continuous Effort to Measure Large Language Models' Reasoning Performance** (*ICML 2023*)
  Yao Fu, **Litu Ou,** Yuhao Wan, Mingyu Chen, Hao Peng, Tushar Khot

- **Context-Aware Hierarchical Merging for Long Document Summarization** (*ACL 2025 Findings*)
  Litu Ou, Mirella Lapata

- **Measuring Context Utilization on Recent Open-Source Long Context LLMs (***ICLR BlogPosts 2025***)**
  Litu Ou

- **BrowseConf: Confidence-Guided Test-Time Scaling for Web Agents** (*arXiv preprint*)
  Litu Ou*, Kuan Li*, Huifeng Yin*, Liwen Zhang, Zhongwang Zhang, Xixi Wu, Rui Ye, Zile Qiao, Yong Jiang, Pengjun Xie, Fei Huang, Jingren Zhou

- **Tongyi DeepResearch Technical Report (***arXiv preprint***)**
  Tongyi DeepResearch Team

- **WebSailor: Navigating Super-human Reasoning for Web Agent** (*arXiv preprint*)
  Kuan Li*, Zhongwang Zhang*, Huifeng Yin*, Liwen Zhang*, **Litu Ou***, Jialong Wu, Wenbiao Yin, Baixuan Li, Zhengwei Tao, Xinyu Wang, Weizhou Shen, Junkai Zhang, Dingchu Zhang, Xixi Wu, Yong Jiang, Ming Yan, Pengjun Xie, Fei Huang, Jingren Zhou

- **ToLeaP: Rethinking Development of Tool Learning with Large Language Models** (*arXiv preprint*)
  Haotian Chen*, Zijun Song*, Boye Niu*, Zhang Ke*, **Litu Ou***, Yaxi Lu, Zhong Zhang, Xin Cong, Yankai Lin, Zhiyuan Liu

- **ReSum: Unlocking Long-Horizon Search Intelligence via Context Summarization** (*arXiv preprint*)
  Xixi Wu, Kuan Li, Yida Zhao, Liwen Zhang, **Litu Ou**, Huifeng Yin, Zhongwang Zhang, Yong Jiang, Pengjun Xie, Fei Huang, Minhao Cheng, Shuai Wang, Hong Cheng, Jingren Zhou

- **WebSailor-V2: Bridging the Chasm to Proprietary Agents via Synthetic Data and Scalable Reinforcement Learning** (*arXiv preprint*)
  Kuan Li, Zhongwang Zhang, Huifeng Yin, Rui Ye, Yida Zhao, Liwen Zhang, **Litu Ou**, Dingchu Zhang, Xixi Wu, Jialong Wu, Xinyu Wang, Zile Qiao, Zhen Zhang, Yong Jiang, Pengjun Xie, Fei Huang, Jingren Zhou

RESEARCH EXPERIENCE

Research Intern, Tongyi Lab, Alibaba Group   Jun 2025 - Sep 2025
- Core contributor to the Tongyi DeepResearch Project.
- Main contributions include: context engineering techniques for long horizon task solving, generalization from synthetic QA to real-world questions, collaborate on large scale stable agentic reinforcement learning, analyze various factors influencing task success rates.
- Wrote a paper measuring confidence in LLM-based search agents and utilizing confidence to improve task performance, and co-authored several papers on building state-of-the-art web agents.

Remote Research Assistant, Professor Zhiyuan Liu's lab, Tsinghua University   Aug 2024 - May 2025
- Enhanced tool-using abilities of Large Language Models and developed multi-agent systems for effective task delegation.
- Co-authored a research paper analyzing challenges in autonomous learning and proposing solutions like real-world benchmarks and rationale learning.

Junior Research Assistant, advised by [Professor Mirella Lapata](#)   Jun 2023 - Dec 2024
Institute for Language, Cognition and Communication, University of Edinburgh
- Completed undergraduate thesis project on retrieval enhanced long document summarization.
- Developed a hierarchical merging strategy that improves faithfulness in summarizing book-length documents, accepted at ACL 2025 Findings.

Software Engineer Intern, Applied Machine Learning Department, ByteDance Inc.   Sep 2021 - Jul 2022
- Core developer of a creative advertising platform using React and Typescript.
- Contributed to developing machine learning platform for internal employees.

AWARDS

Young Software Engineer of the Year Awards 2024 (Finalist, sole nominee from University of Edinburgh as the best UG thesis)

SKILLS

Programming: Python, C++, Java, JavaScript, TypeScript
AI Frameworks: PyTorch, Tensorflow, Huggingface, vLLM, SGLang

HOBBIES

Table tennis • Piano • Swimming • Hiking • Movies