Xixi Wu

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Short Bio

Xixi Wu is a Ph.D. candidate at The Chinese University of Hong Kong. She received her B.S. and M.S. in Computer Science from Fudan University in 2021 and 2024, respectively.

Her research focuses on enhancing the long-horizon **planning**, **reasoning**, and **tool-use capabilities** for language agents. She was a Research Intern at Tongyi DeepResearch Team, contributed to the development of Tongyi-DeepResearch-30B-A3B. Prior to her work on LLMs, she conducted research in Graph Learning.

Education

- **The Chinese University of Hong Kong** — *Aug. 2024 -*
  Ph.D. in Department of Systems Engineering and Engineering Management — Hong Kong SAR
  - Advisor: **Prof. Hong Cheng**, Laboratory: **Database Group @ CUHK**
  - **Hong Kong PhD Fellowship**
- **Fudan University** — *Sept. 2021 - Jun. 2024*
  M.S. in Computer Science — Shanghai, China
  - Advisors: **Prof. Yangyong Zhu** and **Prof. Yun Xiong**
  - **National Scholarship** $\times 2$ **, Outstanding Graduate Student in Shanghai**
- **Fudan University** — *Sept. 2017 - Jun. 2021*
  B.S. in Computer Science — Shanghai, China

Experience

- **Tongyi Lab, Alibaba Group** — *Jun. 2025 - Oct. 2025*
  Research Intern @ DeepResearch Team — Hangzhou, China
  - Mentors: Dr. Liwen Zhang and Dr. Yong Jiang
  - Topics: Developing agentic intelligence through reinforcement learning (RL)
  - Projects: Tongyi-DeepResearch-30B-A3B (**15K+ Downloads**), ReSum, WebSailor-V1 & V2, E-GRPO
  - Responsibilities: (i) Contributed to the development of RL infrastructure for Tongyi-DeepResearch model and the systematical inference and evaluation for WebSailor models; (ii) Conducted research on unlocking long-horizon search intelligence for web agents and devised a summarization-based method **ReSum**, featuring in both training-free and training-required versions, i.e., a tailored ReSum-GRPO algorithm for paradigm adaptation.
- **Microsoft Research Asia** — *Feb. 2024 - Jun. 2024*
  Research Intern @ Shanghai AI/ML Group — Shanghai, China
  - Mentors: Dr. Yifei Shen and Dr. Caihua Shan
  - Topics: Improving planning for language agents through graph learning
  - Project: GNN4TaskPlan (**140+ GitHub Stars**)
  - Responsibilities: (i) Systematically applied various graph learning methods, including graph prompts, graph search, graph language models, etc., to improve the planning capabilities for language agents; (ii) Designed a GNN-based method that demonstrates SOTA performance, strong efficiency, and is orthogonal to LLM fine-tuning and prompt engineering for task planning in language agents.

Selected Awards

- **NeurIPS Top Reviewer (Top 0.8%)** — *2024*
- **Hong Kong PhD Fellowship**, Hong Kong SAR — *2024*
- **National Scholarship for Graduate Student (Top 1%)**, Ministry of Education, China — *2022 & 2023*
- **WWW 2023 Student Travel Award** — *2023*
- **2nd Class Scholarship for Outstanding Student**, Fudan University — *2018 & 2021*
- **2nd Prize of Undergraduate Mathematical Contest in Modeling**, Shanghai, China — *2019*
- **1st Prize in National Olympiad in Mathematics in Provinces**, Jiangsu, China — *2016*

Selected Publications

[* denotes Equal Contribution]

[1] ReSum: Unlocking Long-Horizon Search Intelligence via Context Summarization
Xixi Wu*, Kuan Li*, Yida Zhao, Liwen Zhang, Litu Ou, Huifeng Yin, Zhongwang Zhang, Xinmiao Yu, Dingchu Zhang,Yong Jiang, Pengjun Xie, Fei Huang, Minhao Cheng, Shuai Wang, Hong Cheng, and Jingren Zhou.
Long Paper. In ***arXiv Pre-print 2025***. *16K+ GitHub Stars*

[2] Tongyi DeepResearch Technical Report
Xixi Wu is a co-author, contributed to **the development of RL infrastructure for Tongyi-DeepResearch models**.
Technical Report. In ***arXiv Pre-print 2025***. *16K+ GitHub Stars*

[3] Repurposing Synthetic Data for Fine-grained Search Agent Supervision
Yida Zhao, Kuan Li, **Xixi Wu**, Liwen Zhang, Dingchu Zhang, Baixuan Li, Maojia Song, Zhuo Chen, Chenxi Wang, Xinyu Wang, Kewei Tu, Pengjun Xie, Jingren Zhou, and Yong Jiang.
Long Paper. In ***arXiv Pre-print 2025***. *A New Agentic RL Algorithm*

[4] WebSailor: Navigating Super-human Reasoning for Web Agent
Xixi Wu is a co-author, contributed to **the systematical inference and evaluation for WebSailor**.
Technical Report. In ***arXiv Pre-print 2025***. *Huggingface Daily Paper Top-1, 16K+ GitHub Stars*

[5] WebSailor-V2: Bridging the Chasm to Proprietary Agents via Synthetic Data and Scalable Reinforcement Learning
Xixi Wu is a co-author, contributed to **the development of RL infrastructure for WebSailor**.
Technical Report. In ***arXiv Pre-print 2025***. *Huggingface Daily Paper Top-3, 16K+ GitHub Stars*

[6] Can Graph Learning Improve Planning in LLM-based Agents?
Xixi Wu*, Yifei Shen*, Caihua Shan, Kaitao Song, Siwei Wang, Bohang Zhang, Jiarui Feng, Hong Cheng, Wei Chen, Yun Xiong, and Dongsheng Li.
Main Track Long Paper. In ***NeurIPS 2024***. *140+ GitHub Stars*

[7] When Do LLMs Help With Node Classification? A Comprehensive Analysis
Xixi Wu, Yifei Shen, Fangzhou Ge, Caihua Shan, Yizhu Jiao, Xiangguo Sun, and Hong Cheng.
Long Paper. In ***ICML 2025***. *Benchmark Integrates 10+ Datasets and 10+ Algorithms*

[8] MoLoRAG: Bootstrapping Document Understanding via Multi-modal Logic-aware Retrieval
Xixi Wu, Yanchao Tan, Nan Hou, Ruiyang Zhang, and Hong Cheng.
Long Paper. In ***EMNLP 2025***.

Other First-authored Publications

[9] ProCom: A Few-shot Targeted Community Detection Algorithm
Xixi Wu, Kaiyu Xiong, Yun Xiong, Xiaoxin He, Yao Zhang, Yizhu Jiao, and Jiawei Zhang.
Research Track Long Paper. In ***KDD 2024***.

[10] ConsRec: Learning Consensus Behind Interactions for Group Recommendation
Xixi Wu, Yun Xiong, Yao Zhang, Yizhu Jiao, Jiawei Zhang, Yangyong Zhu, and Philip S. Yu.
Research Track Long Paper. In ***WWW 2023***.

[11] Dual Intents Graph Modeling for User-centric Group Discovery
Xixi Wu, Yun Xiong, Yao Zhang, Yizhu Jiao, and Jiawei Zhang.
Research Track Long Paper. In ***CIKM 2023***.

[12] CLARE: A Semi-supervised Community Detection Algorithm
Xixi Wu, Yun Xiong, Yao Zhang, Yizhu Jiao, Caihua Shan, Yiheng Sun, Yangyong Zhu, and Philip S. Yu.
Research Track Long Paper. In ***KDD 2022***. *60+ Citations*

Academic Service

- **Conference Reviewer:** NeurIPS 2024 - 2025, ICLR 2025 - 2026, KDD 2024 - 2025, ICML 2025, AAAI 2026
- **Journal Reviewer:** IEEE Transactions on Knowledge and Data Engineering (**TKDE**), Transactions on Machine Learning Research (**TMLR**)