

Shijie Wang

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11 Yuk Choi Road, Hung Hom, Kowloon, Hong Kong

EDUCATION

PhD Candidate, The Hong Kong Polytechnic University

Advisor: Dr. Wenqi FAN (supervisor) and Prof. Qing LI (co-supervisor)

BSc Information and Computing Science, University of Liverpool

Grade: First Class Honors Degree

Hong Kong

08/2022–Present

Liverpool, UK

09/2018–07/2022

RESEARCH INTERESTS

♦ Large Language Models, Graph Neural Networks (GNNs), Recommender Systems (RecSys), Trustworthy AI.

PUBLICATION RECORDS

* indicates equal contribution.

- [1] **Shijie Wang**, Wenqi Fan, Yue Feng, Xinyu Ma, Shuaiqiang Wang, Dawei Yin. “Knowledge Graph Retrieval-Augmented Generation for LLM-based Recommendation”, **ACL Main**, 2025.
- [2] Yuqi Zhang, Bin Guo, Nuo Li, Ying Zhang, **Shijie Wang**, Zhiwen Yu, Qing Li. “Tree-of-AdEditor: Heuristic Tree Reasoning for Automated Video Advertisement Editing with Large Language Model”, **IJCAI**, 2025.
- [3] **Shijie Wang**, Jiani Huang, Wenqi Fan, Zhikai Chen, Yu Song, Wenzhuo Tang, Haitao Mao, Hui Liu, Xiaorui Liu, Dawei Yin, Qing Li. “Graph Machine Learning in the Era of Large Language Models (LLMs)”, **ACM Transactions on Intelligent Systems and Technology (TIST)**, 2025.
- [4] Jiani Huang, **Shijie Wang**, Liang-bo Ning, Wenqi Fan, Shuaiqiang Wang, Dawei Yin, Qing Li. “Towards Next-Generation Recommender Systems: A Benchmark for Personalized Recommendation Assistant with LLMs”, Preprint, 2025.
- [5] Wenqi Fan, Yi Zhou, **Shijie Wang**, Yuyao Yan, Hui Liu, Qian Zhao, Le Song, Qing Li. “Computational Protein Science in the Era of Large Language Models (LLMs)”, Preprint, 2025.
- [6] Chengyi Liu, Jiahao Zhang, **Shijie Wang**, Wenqi Fan, Qing Li. “Score-based Generative Diffusion Models for Social Recommendations”, **TKDE**, 2024.
- [7] **Shijie Wang**, Wenqi Fan, Xiao-yong Wei, Xiaowei Mei, Shanru Lin, Qing Li. “Multi-agent Attacks for Black-box Social Recommendations”, **ACM Transactions on Information Systems (TOIS)**, 2024.
- [8] Liang-bo Ning*, **Shijie Wang***, Wenqi Fan, Qing Li, Xu Xin, Hao Chen, Feiran Huang. “CheatAgent: Attacking LLM-Empowered Recommender Systems via LLM Agent”, In **ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)**, 2024.
- [9] Jiahao Zhang, Lin Wang, **Shijie Wang**, Wenqi Fan. “Graph Unlearning with Efficient Partial Retraining”, In the **Web Conference (WWW PhD Symposium)**, 2024.
- [10] Yujian Ding, Wenqi Fan, Liangbo Ning, **Shijie Wang**, Hengyun Li, Dawei Yin, Tat-Seng Chua, and Qing Li. “A Survey on RAG Meets LLMs: Towards Retrieval-Augmented Large Language Models”, In **ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)**, 2024.
- [11] **Shijie Wang**, Shangbo Wang. “A novel Multi-Agent Deep RL Approach for Traffic Signal Control”, in **IEEE International Conference on Pervasive Computing and Communications Workshops (PerCOM Workshops)**, 2023.

Tutorials:

- [12] Wenqi Fan, Pangjing Wu, Yujian Ding, Liangbo Ning, **Shijie Wang**, and Qing Li. “Towards Retrieval-Augmented Large Language Models: Data Management and System Design”, In **IEEE International Conference on Data Engineering (ICDE, Tutorial)**, 2025.
- [13] Yujian Ding, Wenqi Fan, Liangbo Ning, **Shijie Wang**, Hengyun Li, Dawei Yin, Tat-Seng Chua, and Qing Li. “RAG Meets LLMs: Towards Retrieval-Augmented Large Language Models”, In **ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD, Tutorial)**, 2024.
- [14] Yujian Ding, **Shijie Wang**, Liangbo Ning, Qiaoyu Tan, Wenqi Fan, and Qing Li. “Recommender Systems in the Era of Large Language Models (LLMs)”, in **International Joint Conference on Artificial Intelligence (IJCAI, Tutorial)**, 2024.
- [15] Wenqi Fan, Xiangyu Zhao, Lin Wang, Xiao Chen, Jingtong Gao, Qidong Liu, and **Shijie Wang**. “Trustworthy Recommender Systems: Foundations and Frontiers”, In **ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD, Tutorial)**, 2023.
- [16] Wenqi Fan, Xiangyu Zhao, **Shijie Wang**, Xiao Chen, Jingtong Gao, Qidong Liu, and Lin Wang. “Trustworthy Recommender Systems: Foundations and Frontiers”, In **International Joint Conference on Artificial Intelligence (IJCAI, Tutorial)**, 2023.
- [17] Wenqi Fan, Xiangyu Zhao, Lin Wang, Xiao Chen, Jingtong Gao, Qidong Liu, and **Shijie Wang**. “Trustworthy Recommender Systems”, In **The Web Conference (WWW, Tutorial)**, 2023.

PROFESSIONAL SERVICES

Conference Program Committee:

2024: AAAI, ICDM 2023: AAAI

Conference Reviewer:

KDD25 KDD24 KDD23 WWW23 IJCAI23 MM23 WSDM23 CIKM22 LOG22

Journal Reviewer:

ACM Transactions on Information Systems (TOIS)

IEEE Transactions on Knowledge and Data Engineering (TKDE)

IEEE Transactions on Information Forensics and Security (TIFS)

IEEE Internet of Things Journal (IoT-J)

ACM Transactions on Knowledge Discovery from Data (TKDD)

WORK EXPERIENCE

Baidu

Research Intern

- ♦ RAG for LLM-based recommendation.

06/2024–Now
Search Science Team

The Hong Kong Polytechnic University

Research Assistant

- ♦ Towards interactions between adversarial robustness and fairness for trustworthy graph neural networks;
- ♦ Algorithm implementation and paper writing.

09/2022–08/2023
Computing Department

Xian-Jiaotong Liverpool University

Research Assistant

- ♦ Traffic Signal Controller Design by using multi-agent Reinforcement Learning approach.
- ♦ Published one paper in PerCom2023 workshop.

06/2021–04/2022
Computing Department

Teaching Experience

The Hong Kong Polytechnic University

- ♦ Teaching Assistant, COMP3511: Legal Aspects and Ethics of Computing
- ♦ Teaching Assistant, MM5413: Business Forecasting
- ♦ Teaching Assistant, COMP5511: Artificial Intelligence Concepts
- ♦ Teaching Assistant, COMP3511: Legal Aspects and Ethics of Computing
- ♦ Teaching Assistant, MM5413: Business Forecasting
- ♦ Teaching Assistant, COMP5511: Artificial Intelligence Concepts

Spring'2025
Fall'2024
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Fall'2023
Fall'2023