Shijie Wang

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

EDUCATION

PhD Candidate, The Hong Kong Polytechnic University — Hong Kong
Advisor: Dr. Wenqi FAN (supervisor) and Prof. Qing LI (co-supervisor) — 08/2022−08/2026
BSc Information and Computing Science, University of Liverpool — Liverpool, UK
Grade: First Class Honors Degree — 09/2018−07/2022

RESEARCH INTERESTS

- Large Language Models, Recommender Systems (RecSys), Retrieval-Augmented Generation (RAG), Graph Neural Networks (GNNs), Trustworthy AI.

PUBLICATION RECORDS

* indicates equal contribution.

Selected Publications:

[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] **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.

[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] 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.

[5] Chengyi Liu, Jiahao Zhang, **Shijie Wang**, Wenqi Fan, Qing Li. "Score-based Generative Diffusion Models for Social Recommendations", **TKDE**, 2025.

[6] 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.

[7] Jiahao Zhang, Lin Wang, **Shijie Wang**, Wenqi Fan. "Graph Unlearning with Efficient Partial Retraining", In the Web Conference (**WWW** PhD Symposium), 2024.

[8] Yujuan 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.

[9] **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.

Recent Preprints and Submissions:

[1] Jiani Huang, **Shijie Wang**, Liang-bo Ning, Wenqi Fan, Qing Li. "ReRec: Reasoning-Augmented LLM-based Recommendation Assistant via Reinforcement Fine-tuning", Under Review, 2025.

[2] Chengyi Liu, Xiao Chen, **Shijie Wang**, Wenqi Fan and Qing Li. "Continuous-time Discrete-space Diffusion Model for Recommendation", Under Review, 2025.

[3] Lin Wang, **Shijie Wang**, Sirui Huang, Qing Li. "Simplifying Graph Neural Kernels: from Stacking Layers to Collapsed Structure", Preprint, 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.

Tutorials:

[1] Wenqi Fan, Pangjing Wu, Yujuan 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.

[2] Yujuan 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.

[3] Yujuan 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.

[4] 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.

[5] 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.
[6] 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:
AAAI26,25,24,23, ICDM23
Conference Reviewer:
KDD25 (Outstanding Reviewer (**top 10%**)) 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 06/2024−01/2025
Research Intern *Search Science Team*
Mentor: Dr. Dawei Yin and Dr. Shuaiqiang Wang
The Hong Kong Polytechnic University 09/2022−08/2023
Research Assistant *Computing Department*

Teaching Experience

The Hong Kong Polytechnic University
- Teaching Assistant, COMP3511: Legal Aspects and Ethics of Computing Spring'2025
- Teaching Assistant, MM5413: Business Forecasting Fall'2024
- Teaching Assistant, COMP5511: Artificial Intelligence Concepts Fall'2024
- Teaching Assistant, COMP3511: Legal Aspects and Ethics of Computing Spring'2024
- Teaching Assistant, MM5413: Business Forecasting Fall'2023
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