Yuntao Du

PERSONAL INFORMATION

Ph.D. student
Department of Computer Science, Purdue University
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https://zealscott.com

RESEARCH INTERESTS

Data Privacy, AI Security.

EDUCATION

Purdue University, West Lafayette, IN, USA — Aug 2023 – May 2028 (expected)
Ph.D. in Computer Science. Advisor: Prof. Ninghui Li.

Zhejiang University, Zhejiang, China — Sep 2020 – Mar 2023
Master of Engineering in Computer Technology. Advisor: Prof. Yunjun Gao.
Graduated with the highest distinction.

East China Normal University, Shanghai, China — Sep 2016 – Jun 2010
Bachelor of Engineering in Data Science
Graduated with the highest distinction.

HONORS AND AWARDS

Ross Fellowship, Purdue University	2023
Herbold Scholarship, Purdue University	2023
Presidential Doctoral Excellence Awards, Purdue University (150 in total)	2023
Excellent Masters Dissertation, Chinese Institute of Electronics (43 in total)	2023
Provincial Outstanding Graduates, Zhejiang University	2023
National Scholarship, Zhejiang University (top 0.2%)	2022
SIGIR Student Travel Grant	2022
Excellent Graduate Student, Zhejiang University	2021
National Scholarship, Zhejiang University (top 0.2%)	2021

PUBLICATIONS

Yujia Hu, **Yuntao Du**, Zhikun Zhang, Ziquan Fang, Lu Chen, Kai Zheng, Yunjun Gao. Real-Time Trajectory Synthesis with Local Differential Privacy. In Proceedings of the 40th IEEE International Conference on Data Engineering (ICDE), 2024.

Xinjun Zhu, **Yuntao Du**, Yuren Mao, Lu Chen, Yujia Hu, Yunjun Gao. Knowledge-refined Denoising Network for Robust Recommendation. In Proceedings of the 46th International ACM SIGIR conference on research and development in Information Retrieval (SIGIR), 2023.

Minjun Zhao, Lu Chen, Keyu Yang, **Yuntao Du**, Yunjun Gao. Finding Materialized Models for Model Reuse. IEEE Transactions on Knowledge and Data Engineering (TKDE), 2023.

Yuntao Du, Yujia Hu, Zhikun Zhang, Ziquan Fang, Lu Chen, Baihua Zheng, Yunjun Gao. LDPTrace: Locally Differentially Private Trajectory Synthesis. In Proceedings of the 49th International Conference on Very Large Data Bases (VLDB), 2023.

Yuntao Du, Jianxun Lian, Jing Yao, Xiting Wang, Mingqi Wu, Lu Chen, Yunjun Gao, Xing Xie. Towards Explainable Collaborative Filtering with Taste Clusters Learning. In Proceedings of the Web Conference (WWW), 2023.

Zhihao Zeng, **Yuntao Du**, Ziquan Fang, Lu Chen, Shiliang Pu, Guodong Chen, Hui Wang, Yunjun Gao. FLBooster: A Unified and Efficient Platform for Federated Learning Acceleration. In Proceedings of the 39th IEEE International Conference on Data Engineering (ICDE), 2023.

Ziquan Fang, **Yuntao Du**, Xinjun Zhu, Danlei Hu, Lu Chen, Yunjun Gao, Christian S. Jensen. Spatio-Temporal Trajectory Similarity Learning in Road Networks. In Proceedings of the 28th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2022.

Yuntao Du, Xinjun Zhu, Lu Chen, Baihua Zheng, Yunjun Gao. HAKG: Hierarchy-Aware Knowledge Gated Network for Recommendation. In Proceedings of the 45th International ACM SIGIR conference on research and development in Information Retrieval (SIGIR), 2022.

Yunjun Gao, **Yuntao Du**, Yujia Hu, Lu Chen, Xinjun Zhu, Baihua Zheng. Self-Guided Learning to Denoise for Robust Recommendation. In Proceedings of the 45th International ACM SIGIR conference on research and development in Information Retrieval (SIGIR), 2022.

Yuntao Du, Xinjun Zhu, Lu Chen, Ziquan Fang, Yunjun Gao. MetaKG: Meta-learning on Knowledge Graph for Cold-start Recommendation. IEEE Transactions on Knowledge and Data Engineering (TKDE), 2022.

Ziquan Fang, **Yuntao Du**, Lu Chen, Yujia Hu, Yunjun Gao and Gang Chen. E^{2}DTC: An End to End Deep Trajectory Clustering Framework via Self-Training. In Proceedings of the 37th IEEE International Conference on Data Engineering (ICDE), 2021.

Ziquan Fang, Lu Pan, Lu Chen, **Yuntao Du**, Yunjun Gao. MDTP: A Multi-source Deep Traffic Prediction Framework over Spatio-Temporal Trajectory Data. In Proceedings of the 47th International Conference on Very Large Data Bases (VLDB), 2021.

Research Experience

Research Intern, Microsoft Research Asia (MSRA) May 2022 – Jan 2023

- Mentor: Dr. Jianxun Lian & Dr. Xing Xie
- Designing a new cluster-based explainable recommendation algorithm, which has been deployed on Xbox Gaming, and the related paper is published on WWW'23.

Leadership and Service

Conference Reviewer

The AAAI Conference on Artificial Intelligence (AAAI): 2023, 2024.
ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR): 2023, 2024.
ACM International Conference on Information and Knowledge Management (CIKM): 2024.
International ACM SIGIR Conference on Information Retrieval in the Asia Pacific (SIGIR-

AP): 2023.

Journal Reviewer
IEEE Transactions on Knowledge and Data Engineering (TKDE)
ACM Transactions on Recommender Systems (TORS)

Subreviewer
ACM Conference on Data and Application Security and Privacy (CODASPY): 2024
International Conference on Neural Information Processing (ICONIP): 2023.