Xiran Song

Curriculum Vitae

McKelvey School of Engineering
Washington University in Saint Louis
✉ *s.xiran@wustl.edu*
https://xiransong.info/

Education

2024–present **Doctor of Engineering, Computer Science**, *Washington University in Saint Louis*.

2021–2024 **Master of Engineering, Computer Science & Technology**, *Huazhong University of Science and Technology*.
Machine Learning, Graph Representation Learning, Large Language Models

2017–2021 **Bachelor of Engineering, Computer Science & Technology**, *Huazhong University of Science and Technology*.

Publications

Preprint Papers

2024 Zihan Luo, **Xiran Song**, Hong Huang, Jianxun Lian, Chenhao Zhang, Jinqi Jiang, and Xing Xie. Graphinstruct: Empowering large language models with graph understanding and reasoning capability. In *arXiv*, 2024.

Conference Proceedings

2023 **Xiran Song**, Jianxun Lian, Hong Huang, Zihan Luo, Wei Zhou, Xue Lin, Mingqi Wu, Chaozhuo Li, Xing Xie, and Hai Jin. xGCN: An extreme graph convolutional network for large-scale social link prediction. In *Proceedings of the ACM Web Conference 2023*, page 349–359, 2023.

2023 Zihan Luo, Hong Huang, Jianxun Lian, **Xiran Song**, Xing Xie, and Hai Jin. Cross-links matter for link prediction: Rethinking the debiased gnn from a data perspective. In *Proceedings of the 37th Conference on Neural Information Processing Systems*, 2023.

2022 **Xiran Song**, Jianxun Lian, Hong Huang, Mingqi Wu, Hai Jin, and Xing Xie. Friend recommendations with self-rescaling graph neural networks. In *Proceedings of the 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining*, page 3909–3919, 2022.

Journal Articles

2023 Wei Zhou, Hong Huang, Ruize Shi, **Xiran Song**, Xue Lin, Xiao Wang, and Hai Jin. Temporal heterogeneous information network embedding via semantic evolution. *IEEE Transactions on Knowledge and Data Engineering*, pages 1–12, 2023.

Open-source Project

2023 ***XGCN: a light-weight Python library for large-scale graph neural network embedding***.
Developing XGCN: a light-weight library for large-scale graph neural network embedding, aiming at helping researchers to quickly embed million-scale graphs in a single-machine environment. GitHub: https://github.com/CGCL-codes/XGCN_library

Research Experience

Huazhong University of Science and Technology

Sept. 2023 – present ***Large Language Models for Graph Understanding***.
Evaluating and improving graph understanding abilities of large language models.

Advisor : **Dr. Hong Huang**, *Associate Professor, School of Computer Science & Technology*

Sept. 2021 – Sept. 2023 ***Large-scale Graph Neural Network Embedding***.
Developing graph neural network models and training strategies that have better performance on real-world large-scale graphs.
Advisor : **Dr. Hong Huang**, *Associate Professor, School of Computer Science & Technology*

Microsoft Research Aisa

Feb. 2021 – June 2021 ***Graph Neural Networks for Friend Recommendation***.
Applying graph neural networks to friend recommendation and developing models to improve the Xbox-Gaming's friend recommendation services.
Advisor : **Dr. Jianxun Lian**, *Senior Researcher, Social Computing Group*

Awards

2022 ***National Scholarship*** of Huazhong University of Science and Technology.

2022 ***Merit Student*** of Huazhong University of Science and Technology.