

Xovee Xu

PhD Student in Computer Science
School of Computer Science and Engineering
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Education

University of Electronic Science and Technology of China (UESTC)

Ph.D., Computer Science, 2021 to 2025 (expc.)

M.S., Software Engineering, 2021

B.S., Software Engineering, 2018

Academic Employment

Research Assistant, University of Electronic Science and Technology of China, 2018 -

Distinction

Student Award & Scholarship

Excellent Master Thesis, 105/4929; and PhD Entrance Scholarship, UESTC, 2021

Outstanding Graduate Student; and First Prize Scholarship, 20%, UESTC, 2020

Paper Award

INFOCOM 2020 Student Conference Award, IEEE ComSoc, 2020

Academic Service

Reviewing (selected, ordered by count and alphabetically)

IEEE Internet of Things Journal, $\times 3$

International Journal of Intelligent Systems (IJIS), $\times 2$

AAAI Conference on Artificial Intelligence (AAAI), $\times 1$

ACM SIGKDD Conference on Knowledge Discovery and Data Mining (SIGKDD), $\times 1$

ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, $\times 1$
 IEEE International Conference on Big Data, $\times 1$
 IEEE International Conference on Data Engineering (ICDE), $\times 1$
 IEEE Transactions on Big Data, $\times 1$
 IEEE Transactions on Knowledge and Data Engineering (TKDE), $\times 1$
 IEEE Transactions on Neural Networks and Learning Systems (TNNLS), $\times 1$
 IEEE/ACM Transactions on Networking (TON), $\times 1$

Volunteering

Student Volunteer, ACM Multimedia 2021, Chengdu, China, Oct 20-24, 2021
 Student Volunteer, SIGIR 2021, Online Conference, Jul 11-15, 2021
 Student Volunteer, ICTIR 2021, Online Conference, Jul 11, 2021

Professional Membership

ACM: Association for Computing Machinery
 Member (2020)
 CCF: China Computer Federation
 Student Member (2021)
 IEEE: Institute of Electrical and Electronics Engineers
 Graduate Student Member (2020)

Area of Interest

Social network analysis
 Spatial-temporal data mining
 Science of science

Publication

* Corresponding , \dagger Equal Contribution

Refereed Conference Articles

1. Guanyu Wang, Ting Zhong, **Xovee Xu**, Kunpeng Zhang, Fan Zhou, and Yong Wang. 2021. Vector-quantized autoencoder with copula for collaborative filtering. ACM International Conference on Information and Knowledge Management (CIKM), Online, Nov 1-5, 2021, 4 pages, Accepted.
2. Fan Zhou, Ce Li, **Xovee Xu**, Xucheng Luo, and Ting Zhong. 2020. HGENA: A hyperbolic graph embedding approach for social network alignment. IEEE Global Communications Conference (GLOBECOM), Hybrid Conference (In-person/Virtual), Madrid, Spain, Dec 7-11, 2021, 6 pages, Accepted.

3. Fan Zhou, Liu Yu, **Xovee Xu***, and Goce Trajcevski. 2021. Decoupling representation and regressor for long-tailed information cascade prediction. International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), Virtual Event, Jul 11-15, 2021, pp. 1875-1879, doi:10.1145/3404835.3463104
4. Fan Zhou, Xiuxiu Qi, **Xovee Xu**, Jiahao Wang*, Ting Zhong, and Goce Trajcevski. 2020. Meta-learned user preference for topic participation prediction. IEEE Global Communications Conference (GLOBECOM), Virtual Conference, Dec 7-11, 2020, 6 pages, doi:10.1109/GLOBECOM42002.2020.9322197
5. Fan Zhou, Zijing Wen, Ting Zhong*, Goce Trajcevski, **Xovee Xu**, and Leyuan Liu. 2020. Unsupervised user identity linkage via graph neural networks. IEEE Global Communications Conference (GLOBECOM), Virtual Conference, Dec 7-11, 2020, 6 pages, doi:10.1109/GLOBECOM42002.2020.9322311
6. Fan Zhou, Xin Jing, **Xovee Xu**, Ting Zhong, Goce Trajcevski, and Jin Wu*. 2020. Continual information cascade learning. IEEE Global Communications Conference (GLOBECOM), Virtual Conference, Dec 7-11, 2020, 6 pages, doi:10.1109/GLOBECOM42002.2020.9322124
7. Fan Zhou, **Xovee Xu**, Kunpeng Zhang, Goce Trajcevski, and Ting Zhong*. 2020. Variational information diffusion for probabilistic cascade prediction. IEEE International Conference on Computer Communications (INFOCOM), Virtual Conference, Jul 6-9, 2020, pp. 1618-1627, doi:10.1109/INFOCOM41043.2020.9155349
INFOCOM 2020 Student Conference Award

Refereed Journal Articles

8. Fan Zhou, Pengyu Wang, **Xovee Xu***, Wenxin Tai, and Goce Trajcevski. 2021. Contrastive trajectory learning for tour recommendation. *ACM Transactions on Intelligent Systems and Technology (TIST)*, 2021, Accepted Special Issue on Intelligent Trajectory Data Analytics
9. Fan Zhou, **Xovee Xu***, Goce Trajcevski, Kunpeng Zhang. 2021. A survey of information cascade analysis: Models, predictions, and recent advances. *ACM Computing Surveys (CSUR)*, vol. 54, no. 2, article 27, 36 pages, Mar 2021, doi:10.1145/3433000, arXiv:2005.11041

Pre-prints

10. **Xovee Xu**, Fan Zhou*, Kunpeng Zhang, and Siyuan Liu. 2021. CCGL: Contrastive Cascade Graph Learning. arXiv:2107.12576, Jul 2021, 14 pages.
Code: <https://github.com/Xovee/ccgl>
11. Fan Zhou, **Xovee Xu**, Ce Li, Goce Trajcevski, Ting Zhong, and Kunpeng Zhang. 2020. A heterogeneous dynamical graph neural networks approach to quantify scientific impact. arXiv:2003.12042, Mar 2020, 8 pages.
Code: <https://github.com/ceLi52/si-hdgnn>

Work in Progress

12. Ting Zhong, Haoyang Yu, Rongfan Li, **Xovee Xu**, Xucheng Luo, and Fan Zhou. 2021. Probabilistic fine-grained urban flow inference with normalizing flows. Under review, 2021
13. Liu Yu, **Xovee Xu**, Ting Zhong, Goce Trajcevski, and Fan Zhou. 2021. Linking Transformer to Hawkes process for information cascade prediction. Under review [Abstract], 2021
14. Guanyu Wang, **Xovee Xu**, Ting Zhong, and Fan Zhou. 2021. Conditional collaborative filtering process for top-k recommender system. Under review [Abstract], 2021

15. Haoyang Yu, **Xovee Xu**, Ting Zhong, and Fan Zhou. 2021. Fine-grained urban flow inference via normalizing flows. Under review [Abstract], 2021
16. Liu Yu[†], **Xovee Xu**[†], Ting Zhong, Goce Trajcevski, and Fan Zhou*. 2021. Transformer-enhanced Hawkes process for information cascade prediction. Under review, 2021
17. Zhiyuan Wang[†], **Xovee Xu**[†], Goce Trajcevski, Kunpeng Zhang, Ting Zhong, and Fan Zhou*. 2021. PrEF: Probabilistic electricity forecasting via copula-augmented state space model. Under review, 2021
18. **Xovee Xu**, Goce Trajcevski, and Fan Zhou. 2021. Spatial-temporal contrasting for fine-grained urban flow super-resolution. Under review, 2021
Code will be released once accepted
19. Fan Zhou, **Xovee Xu***, Kunpeng Zhang, Siyuan Liu, and Goce Trajcevski. 2020. CasFlow: Exploring hierarchical structures and propagation uncertainty for cascade prediction. Under review, 2020
Code: <https://github.com/Xovee/casflow>

Thesis

1. Xovee Xu. 2021. A research of information diffusion models and popularity prediction using graph neural networks (in Chinese). Master's Thesis. School of Information and Software Engineering, University of Electronic Science and Technology of China (UESTC), Chengdu, Sichuan, China, Jun 2021, 93 pages. Supervisors: Ting Zhong. Committee chair: Jingye Cai.
Excellent Master Thesis of UESTC (105/4929)

Conference Presentation

2020 39th IEEE International Conference on Computer Communications (INFOCOM), Virtual Conference

Patent

1. Fan Zhou, Chengtai Cao, Ting Zhong, and **Xovee Xu**. 2021. Training data generation method based on meta-learner and causal effect heterogeneous reaction difference estimation method (in Chinese). China Invention Patent Application, No. CN113095440A, Filed Apr 30, 2021, Published Jul 9, 2021.

Teaching Experience

C Programming Language

Teaching Assistant, with Prof. Ting Zhong, at UESTC

Spring 2020

Software Project Management

Teaching Assistant, with Prof. Gianmario Motta (University of Pavia), at UESTC

Summer 2019

Language

Native Chinese (Mandarin & Northern Shaanxi Dialect)

Fluent English

October 24, 2021