Fanghua Ye

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EDUCATION

University College London (UCL), United Kingdom Dec. 2019 - Now
Department of Computer Science
PhD in Computer Science, Advisor: Prof. Emine Yilmaz

Sun Yat-Sen University (SYSU), China Aug. 2016 - Jun. 2019
School of Computer Science and Engineering
Master in Computer Science, Advisor: Prof. Zibin Zheng

University of Electronic Science and Technology of China (UESTC), China Sep. 2012 - Jun. 2016
Yingcai Honors College (Elite School)
Bachelor in Computer Science, GPA: *3.89/4.0*

RESEARCH INTERESTS

Conversational AI (Task-Oriented Dialogue Systems), Question Answering, Natural Language Processing, Graph Mining, Machine Learning

EXPERIENCE

National University of Singapore, Singapore Feb. 2019 - May 2019
Research Assistant: Fast and Accurate Community Detection; Advisor: Prof. Xiaokui Xiao

- We tried to apply nonsmooth nonnegative matrix factorization to community detection and proposed a novel community detection model named autoencoder-like deep sparse nonnegative matrix factorization. We further implemented an efficient learning algorithm with linear time complexity to solve the proposed model.

The Chinese University of Hong Kong, China Jul. 2018 - Aug. 2018
Visiting Student: Network Embedding; Advisor: Prof. Michael R. Lyu

- We carried out research on random walk-based large-scale network embedding and proposed a new embedding model which leverages multiple random walkers to better capture the community structures.

WeChat Group, Tencent Inc., China Apr. 2017 - Mar. 2018
Research Intern: Ego-Network Community Detection; Mentors: Zongyi Zhang, Chenxi Liang, Guohui Ling

- We focused on community detection in the ego-networks of WeChat users and proposed to take into account multiple information such as friendships, demographics, official accounts, etc. We fused these different types of information under the multi-view learning framework to detect communities accurately.

SELECTED PUBLICATIONS

Book Chapter

- **Fanghua Ye**, Zitai Chen, Hui Qian, Rui Li, Chuan Chen, and Zibin Zheng. "New Approaches in Multi-View Clustering." *Recent Applications in Data Clustering*, Chapter 11 (2018): 195-220.

Journal Articles

- Weibo Hu, Chuan Chen, **Fanghua Ye**, Zibin Zheng, and Yunfei Du. "Learning Deep Discriminative Representations with Pseudo Supervision for Image Clustering." *Information Sciences* (**IS**) 568 (2021): 199-215.

- Yao Wu, Yu Song, Hong Huang, **Fanghua Ye**, Xing Xie, and Hai Jin. "Enhancing Graph Neural Networks via Auxiliary Training for Semi-Supervised Node Classification." *Knowledge-Based Systems* (**KBS**) 220 (2021).

- Hong Huang, Yu Song, **Fanghua Ye**, Xing Xie, Xuanhua Shi, and Hai Jin. "Multi-Stage Network Embedding for Exploring Heterogeneous Edges." *ACM Transactions on Knowledge Discovery from Data* (**TKDD**) 15 (2020): 1-27.

- Jie Huang, Chuan Chen, **Fanghua Ye**, Weibo Hu, and Zibin Zheng. "Nonuniform Hyper-Network Embedding with Dual Mechanism." *ACM Transactions on Information Systems* (**TOIS**) 38 (2020): 1-18.

- Rong-Hua Li, Lu Qin, **Fanghua Ye**, Guoren Wang, Jeffrey Xu Yu, Xiaokui Xiao, Nong Xiao, and Zibin Zheng. "Finding Skyline Communities in Multi-Valued Networks." *The VLDB Journal* (**VLDBJ**) 29 (2020): 1407–1432.

- **Fanghua Ye**, Chuan Chen, Zhiyuan Wen, Zibin Zheng, Wuhui Chen, and Yuren Zhou. "Homophily Preserving Community Detection." *IEEE Transactions on Neural Networks and Learning Systems* (**TNNLS**) 31 (2019): 2903-2915.

- Zibin Zheng, **Fanghua Ye**, Rong-Hua Li, Guohui Ling, and Tan Jin. "Finding Weighted K-Truss Communities in Large Networks." *Information Sciences* (**IS**) 417 (2017): 344-360.

Conference Papers

- **Fanghua Ye**, Jarana Manotumruksa, Qiang Zhang, Shenghui Li, and Emine Yilmaz. "Slot Self-Attentive Dialogue State Tracking." In *The Web Conference* (**WWW**), 2021.

- **Fanghua Ye**, Zhiwei Lin, Chuan Chen, Zibin Zheng, and Hong Huang. "Outlier-Resilient Web Service QoS Prediction." In *The Web Conference* (**WWW**), 2021.

- **Fanghua Ye**, Jarana Manotumruksa, and Emine Yilmaz. "Unsupervised Few-Bits Semantic Hashing with Implicit Topics Modeling." In *Findings of the Association for Computational Linguistics: EMNLP* (**Findings of EMNLP**), 2020.

- **Fanghua Ye**, Chuan Chen, Zibin Zheng, Rong-Hua Li, and Jeffrey Xu Yu. "Discrete Overlapping Community Detection with Pseudo Supervision." In *IEEE International Conference on Data Mining* (**ICDM**), 2019.

- **Fanghua Ye**, Chuan Chen, and Zibin Zheng. "Deep Autoencoder-Like Nonnegative Matrix Factorization for Community Detection." In *ACM International Conference on Information and Knowledge Management* (**CIKM**), 2018.

- Rong-Hua Li, Lu Qin, **Fanghua Ye**, Jeffrey Xu Yu, Xiaokui Xiao, Nong Xiao, and Zibin Zheng. "Skyline Community Search in Multi-Valued Networks." In *ACM International Conference on Management of Data* (**SIGMOD**), 2018.

HONORS AND AWARDS

- UCL Research Studentship	2019 - Now
- National Postgraduate Scholarship, Ministry of Education	2018
- ICDM Student Travel Award	2018
- SIGIR Student Travel Grant for CIKM	2018
- National Postgraduate Scholarship, Ministry of Education	2017

SKILLS

- **Programming Languages** & **Platforms**: Python, C/C++, Java, MATLAB, Pytorch