

# Fanghua Ye

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## EDUCATION

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**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

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

## EXPERIENCE

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**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

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### 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, and Emine Yilmaz. “MultiWOZ 2.4: A Multi-Domain Task-Oriented Dialogue Dataset with Essential Annotation Corrections to Improve State Tracking Evaluation.” In *Findings of the Association for Computational Linguistics: ACL (Findings of ACL)*, 2021. (short)
- **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

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| • 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