

# Miss Lu FAN

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## RESEARCH INTERESTS

Graph Mining, Recommender Systems, Image Processing

## EXPERIENCE

[CCCN](#), EE, CityU

SAR, Hongkong

Oct. 2017-Apr. 2018

Research Assistant

- Researching and analyzing an opinion dynamic model so-called Naming Game on adaptive networks.

[IVSN Group](#), ZJUT

Hangzhou, Zhejiang

Sep. 2016-Aug. 2017

Undergraduate Research

- Involved in 4 research projects including**
  - Improved spectral clustering based on Node2vec features and personalized recommendation [1,3].
  - Local recommendation framework based on geographical and categorical information (Thesis).
  - Link prediction using supervised learning [2].
  - Rating prediction based on MLR and semantic analysis [4].
- In the process I**
  - Cleaned data, did exploratory data analysis and generated reports.
  - Extracted up to 23 common topology features for the project 3, defined an R structure which works well on both directed or undirected weighted network, and is easy to extend.
  - Implemented machine learning solutions and recommendation techniques.
  - Designed the local recommendation architecture present in the thesis. Instigated the direction and completed most of the experimental research in the project 1. Wrapped a single wrapper function to easily subsetting the correlation matrix and extend recommender.
  - Visualization. Made most of the map and figures in all 4 projects.
  - Writing work in the project 1, 2 and 4.
  - Published a browser demo for my own thesis: <https://floatsd.shinyapps.io/GeoCUI/>

DJI Technology Co., Ltd

Shenzhen, Guangdong

Jul. 2016-Aug. 2016

Intern

- Developed and optimized the object detection, tracking and positioning algorithm, make it practical on the DJI Matrice 100 drone and won the bronze prize in the championship.

## PUBLICATIONS

- [1] Jinyin Chen, Yangyang Wu, **Lu Fan**, Xiang Lin, Haibin Zheng, Shanqing Yu and Qi Xuan. *Improved Spectral Clustering Collaborative Filtering with Node2Vec Technology*. 2017 IWCSN2017
- [2] Chenbo Fu, Minghao Zhao, **Lu Fan**; Xinyi Chen; Jinyin Chen; Zhefu Wu; Yongxiang Xia; Qi Xuan. *Link Weight Prediction Using Supervised Learning Methods and Its Application to Yelp Layered Network* IEEE TKDE Under Revision
- [3] Jinyin Chen, Yangyang Wu, **Lu Fan** and Qi Xuan. *N2VSCDNNR: A Clustering Recommender System Based on Node2vec and Rich Information Network* Submitted to TKDE
- [4] Yewei Yu, **Lu Fan**, Zhongyuan Ruan, Qi Xuan. *Prediction of Restaurant Score Based on Multiple Linear Regression* In Progress

