

Miss Lu FAN

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RESEARCH INTERESTS

Data Mining, Complex Network, Recommender Systems

EXPERIENCE

[CCCN](#), CityU

SAR, Hongkong

Oct. 2017-Apr. 2018

Research Assistant

- Research on an opinion dynamic model so-called Naming Game on adaptive networks.
- Graph-based algorithms implementation such as motif counting and complex network statistics.

[IVSN Group](#), ZJUT

Hangzhou, Zhejiang

Sep. 2016-Aug. 2017

Undergraduate Research

- **Involved in 4 research projects including**
 1. Link prediction using supervised learning [1].
 2. Local recommendation framework based on geographical and categorical information (Thesis).
 3. Local recommendation using node2vec and improved spectral clustering [2].
 4. Rating prediction based on multiple linear regression and semantic analysis [3].
- **In the process I**
 - Cleaned data, did exploratory data analysis and generated reports.
 - Extracted up to 23 common topology features for the project 1, defined an R structure which works well on both directed or undirected weighted network.
 - Implemented machine learning solutions and recommendation techniques.
 - Designed the local recommendation architecture present in the thesis. Instigated the direction and completed half of the experimental research in the project 3. Wrapped a single wrapper function to easily subsetting the correlation matrix and extend recommenders.
 - Most of visualization in all 4 projects.
 - Editing in the project 2, 3 and 4.
 - Made a web 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] 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. 2018 IEEE TKDE
- [2] Jinyin Chen, Yangyang Wu, **Lu Fan**, Xiang Lin, Haibin Zheng, Shanqing Yu, Qi Xuan. Improved Spectral Clustering Collaborative Filtering with Node2Vec Technology. 2017 IWCSN2017
- [3] Yewei Yu, **Lu Fan**, Zhongyuan Ruan, Qi Xuan. Prediction of Restaurant Score Based on Multiple Linear Regression In Progress

SKILLS

- Advanced in R
- Experienced in Matlab, C/C++, and mySQL
- Experienced in Spark, Tensorflow, OpenCV, and Cuda
- Experienced in Linux
- Experienced in API Calls, Parallel Computing, and Visualization
- Productivity Tools Seeker

EDUCATION

Information Engineering Department, Zhejiang University of Technology

Sep. 2013- Jun. 2017

Bachelor of Engineering

Grade GPA: 84.2/100 (91.6/100 in the last two school years)

Overall Rank: 17/119

Honors Department Outstanding Thesis 2017

Jun. 2017

ZJUT Third-class Scholarship

2013/14, 2015/16

APPENDIX

Individual Project	▪ Extracted the MFCC and other three common audio features over 700+ bird song records. Developed an SVM classifier over 6 kinds of birds.	Mar. 2016 -Jun. 2016
	▪ Detected and tracked cars in video, count cars in flow and exam the speed of the vehicles, developed using Matlab and mean-shift algorithms.	Feb. 2016
Eglish	▪ Cet-6: 517, Toefl: 83, Speak fluent English.	
Control	▪ Developed an oven temperature controller based on Cortex M4.	Jun. 2016
Theroy & Embedded System	▪ Developed a Matlab user interface to visualize the performance of linear control model.	May. 2016
	▪ Developed a game application based on development board TM4C1294.	Sep. 2015
	▪ Tested five controller based on Matlab Simulink. Emulation based on GML2001 maglev levitation ball systems and wrote part of documents.	May. 2014 -Sep. 2015
Habit	▪ ZJUT Arial Radio Control Model Team Member, build and control owned drones and fixed wings, won the third-class prize in RC model control events, China Aeromodelling Design Challenge in Oct. 2015.	Mar. 2013 -Current
Volunteer & Organizational capability	▪ Planned and Started the volunteer project of helping retired old to use modern high tech devices. Up to now it has become a long term project and services hundreds of times.	Jul. 2014
	▪ Planned and arranged two ZJUT eyas cup speech contest, one ZJUT Zongheng cup debate competition and multiple volunteer activities.	Oct. 2013 -Jan. 2015

