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**
  1. Improved spectral clustering based on Node2vec features and personalized recommendation [1,3].
  2. Local recommendation framework based on geographical and categorical information (Thesis).
  3. Link prediction using supervised learning [2].
  4. 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

EDUCATION

Information Engineering Department, Zhejiang University of Technology   **Sep. 2013- Jun. 2017**

Bachelor of Engineering

Grade	GPA: 84.2/100	Rank: 17/119	
Honors	Department Outstanding Thesis 2017		Jun. 2017
	ZJUT Third-class Scholarship		2013/14, 2015/16

SKILLS

- Advanced in R
- Experienced in Matlab, C/C++, mySQL, Spark, OpenCV, Cuda and Linux

- Experienced in Data Mining, Implementing Machine Learning Solutions and Recommenders, Parallelized computing and Visualization
- Productivity Tools Seeker

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 Theroy & Embedded System	▪ Developed an oven temperature controller based on Cortex M4.	Jun. 2016
	▪ 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 prize in RC model control events, China Aeromodelling Design Challenge in Oct. 2015.	Mar. 2013 -Current
Volunteer & Organizatioal 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