Chaoqi Yang

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EDUCATION

School of Cyber Security, Shanghai Jiao Tong University **Sep. 2015 - Present**

Overall GPA: 89.15/100 (3.82/4.3), Major GPA: 88.8/100 (3.80/4.3) Ranked: 9/101

Core Courses: ● Mathematical Analysis (96, Top 1%), ● Linear Algebra (95, Top 5%), ● Probability and Statistics (98, Top 1%), ● C++ Programming (91), ● Computer Organization and Architecture (92), ● Principle of Database (94, Top 5%), ● Mathematical Foundation of Information Security (96), ● Principle of Compiling, ● Data Structure and Algorithm, ● Principle and Technology of Computer Communication Network, ● Physics (99, Top 2%), ● Digital Signal Processing (93, top 5%), ● Signal and System (96, Top 1%), ● Analog Electronics Technique (97, Top 1%)

RESEARCH EXPERIENCES

Topic 1: Social Network Analysis – Topic Popularity Prediction | SJTU & Tencent **July 2017 - Jan. 2018**

Advisor: Xiaofeng Gao, Associate Professor at Department of Computer Science and Engineering, SJTU

Co-advisor: Peng He, Senior Researcher of WeChat Business Division Data Center, Tencent Inc.

- Reviewed 60+ papers in topic popularity prediction and made a list of indexes including records for each paper
- Cooperatively proposed a novel Bayesian model incorporated with fuzzy membership and adopted EM algorithm to estimate the parameters
- Kept close connection with staff from Tencent on detailed data requirements, and extracted 23 features from millions of WeChat retweeting records and user profile information
- Conducted extensive experiments on Twitter, Weibo and WeChat comparing with six strong baselines, and achieved improvement of mean absolute percent error (MAPE) by 13.10%

Topic 2: Social Network Analysis – Cascade Burst Detection | Shanghai Jiao Tong University **Dec. 2017 - Present**

Advisor: Xiaofeng Gao, Associate Professor at Department of Computer Science and Engineering, SJTU

- Explored and crawled data from Twitter, Weibo with API and filtered data sets for future use of our laboratory research
- Proposed a novel survival model combining the survival boundary (obtained by two Gaussian distributions) and hazard ceiling to characterize the diffusion of cascades
- Employed three useful features to capture both the dynamic and static characteristics of cascades
- Conducted extensive experiments on Twitter and Weibo, achieved a relative high recall and early detection time

PUBLICATIONS

- Qitian Wu, **Chaoqi Yang**, Xiaofeng Gao, Peng He, Guihai Chen, "FLAME: Fuzzy Learning based Bayesian Model for Early-Stage Content Popularity Prediction in Online Social Networks". *Submitted to International Joint Conference on Artificial Intelligence (IJCAI), 2018*
- **Chaoqi Yang**, Qitian Wu, Xiaofeng Gao, Guihai Chen, "EPOC: Detecting Early Pattern of Outbreak Cascades in Social Networks". *To be submitted to International Conference on Database and Expert Systems Applications (DEXA), 2018*

SELECTED PROJECTS (codes of Project 1 & Project 3 are available in my GitHub https://github.com/ycq091044)

Project 1: Wireless Remote Control & Web Design | Shanghai Jiao Tong University **Sep. 2016 – Feb. 2017**

Advisor: Shiwen Zhang, Senior Engineer at School of Electronic Information & Electrical Engineering, SJTU

- Implemented an Android App using bluetooth in Android Studio to control a small mechanical car wirelessly
- Realized four control modes with five slide pages: direction button, voice (iFly Specch API), gesture shift, gravity sensor (3D Gyroscope), and realized video transmission
- Created a website with a series of html files on a cloud serer to represent my work
- Got an A in this project and win an honor to show it in the hallway

Project 2: Design of Image Retrieval Interactive System | Shanghai Jiao Tong University **July 2017 – Sep. 2017**

Advisor: Liqing Zhang, Professor and Vice Dean at School of Electronic Information & Electrical Engineering, SJTU

Cooperator: ZhenZhong Zhou, PhD Student at Department of Computer Science and Engineering, SJTU

- Cooperatively implemented a clothing recommendation system: an android application & a fancy web application
- Constructed a PHP cloud server and crawled millions of pictures of clothes from Taobao and Tmall
- Help to label the pictures using Faster-RCNN, used Google Chrome Console and Socket to connect
- Been highly praised by advisor and got strong comments on my ability to code and execute

Project 3: Design of Online Chatroom Based on WeChat | Shanghai Jiao Tong University **Sep. 2017 – Dec. 2017**

Advisor: Xinghao Jiang, Professor and Vice Dean at School of Cyber Security, SJTU

- Finished complicated configuration and set up a local server with XAMPP and MySQL
- Imported all emojis from WeChat, implemented a software client with PyQt4 and Python Socket
- Implemented a web client like WeChat Moment with Flask and Bootstrap
- Got full marks in this project

AWARDS & HONORS

- Class B Scholarship in Shanghai Jiao Tong University, 2016 & 2017
- Kwang-Hua Scholarship (Top 3 in department), 2016; Huawei scholarship (Top 5 in department), 2017
- Honorable Mention Prize, Mathematics Contest in Modeling (MCM), 2017
- Provincial 2nd Prize, China Undergraduate Mathematical Contest in Modeling (CUMCM), 2017
- Provincial 2nd Prize, The Chinese Mathematics Competitions (CMC), 2016
- Provincial 3rd Prize, China Undergraduate Physics Competition, 2016
- Eastern Division 3rd Prize, Shing-Tung Yau High School Mathematics Awards, 2015
- National 1st Prize, Chinese Mathematical Olympiad in Senior, 2014

MODELING COMPETITION

Mathematics Contest in Modeling | Shanghai Jiao Tong University | Group Leader **Feb. 2018**

- Conducted extensive data analysis and survey on the provided 50 years of four states' data in 605 variables
- Proposed a novel model to characterize the evolution of four states' energy profile
- Designed indicators to assess the usage of cleaner & renewable energy in four states
- Put forward a revised ARIMA model with Development Index for predicting future energy consumption

China Undergraduate Mathematical Contest in Modeling | Shanghai Jiao Tong University | Group Leader **Sep. 2017**

- Led a group of three students and supervised the work of parameter calibration and projection of CT system
- Used Filter Back Projection (FBP) Algorithm to reconstruct two required molds
- Created a new symmetrical bicylinder mold to calibrate parameters, and provided theoretical analysis of its advantage

SKILLS & INTERESTS

Techniques: C/C++, Matlab, Python, R, HTML, Pascal, Latex (especially expertise in Matlab, Python and Latex)

Languages: TOFEL 94 (R:27, L:27, S:20, W:20)

Interests: Orienteering, Badminton, Table Tennis, Swim, Travel, Music