# Chaoqi Yang

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# **EDUCATION**

• Shanghai Jiao Tong University (SJTU)

Shanghai, China

Bachelor of Engineering in Information Security, School of Cyber Security

Sep. 2015 - Jul. 2019 (Expected)

- Rank: 5/97 Major GPA: 91.08/100 (3.86/4.00) Cumulative GPA: 89.34/100 (3.75/4.00)
- TOEFL: 102 (R:29, L:27, S:22, W:24) GRE: 329+4.0 (V:159, Q:170, AW:4.0)
- Math Courses: Mathematical Analysis I (91, Top 5%), Mathematical Analysis II (96, Top 1%), Linear Algebra (95, Top 5%), Probability and Statistics (98, Top 1%), Mathematical Foundation of Information Security (96, Top 1%)
- University of Illinois at Urbana-Champaign (UIUC)

IL, USA

Research Intern at Crowd Dynamics Lab (Data Mining), Department of Computer Science

Jul. 2018 - Oct. 2018

## Publications

# [1] EPOC: Detecting Early Pattern of Outbreak Cascades in Social Networks

[pdf]

[pdf]

<u>Chaoqi Yang</u>, Qitian Wu, Xiaofeng Gao, Guihai Chen. The 29th International Conference on Database and Expert Systems Applications (DEXA). (Acceptance Rate 21.88%, 35/160)

- designed the algorithm; implemented the experiments; did all the paper writing and visualization.
- [2] Adversarial Training Model Unifying Feature Driven and Point Process Perspectives for Event Popularity Prediction

Qitian Wu, Chaoqi Yang, Hengrui Zhang, Xiaofeng Gao, Paul Weng, Guihai Chen. The 27th International Conference on Information and Knowledge Management (CIKM). (Acceptance Rate 17.00%, 147/862)

- helped design the algorithm iteratively; wrote Related Work part in paper; implement part of the experiments; did paper visualization.
- [3] EPAB: Early Pattern Aware Beyesian Model for Social Content Popularity Prediction
  Qitian Wu, Chaoqi Yang, Xiaofeng Gao, Peng He, Guihai Chen. The 20th IEEE International Conference
  on Data Mining (ICDM). (Acceptance Rate 19.94%, 189/948)
  - helped design the algorithm iteratively; implement part of the experiments; did paper visualization.

# Submission & Working

- [1] MoTiAC: Multi-objective Actor-Critics for Real-time Bidding in Display Advertising

  Chaoqi Yang, Junwei Lu, Xiaofeng Gao, Haishan Liu, Qiong Chen, Gongshen Liu, Guihai Chen. The 25th ACM

  SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) (Under Review)
  - designed the algorithm; helped implemented the experiments; did all the paper writing and visualization.
- [2] A Graph Convolutional Approach to Answer Selection in Community Question Answering
  Kanika Narang, Chaoqi Yang, Adit Krishnan, Hari Sundaram, Carolyn Sutter. (Rejected by WWW2019,
  currently working for CIKM2019)
  - designed the algorithm; implemented the experiments; did paper visualization.

### Research Experience

## • Reinforcement Learning for Real-time Bidding

Tencent Social Ads, Beijing, China

Advisor: Liubin (Ubi) Wang and Haishan Liu

Nov. 2018 - Jun. 2019 (Expected)

- Changed A3C structure and proposed multi-objective reinforcement learning algorithm (in short, MoTiAC): using multiple critics to guide one actor towards a balance situation between different objectives (KDD acceptance)
- Improved daily revenue by 4.3% and ROI by 2.6% for Tencent Ads platform in large-scale off-line experiments

## • Graph Convolution for Answer Selection in Community QA

UIUC, IL, USA

Advisor: Hari Sundaram; Co-worker: Kanika Narang and Adit Krishnan

Jul. 2018 - Nov. 2018

- Proposed induced-relation (contrastive, similarity and reflexive) graph convolutional networks (WWW submission)
- Conducted extensive experiments on 5 tech and 5 non-tech Stackexchanges as well as 3 SubReddits
- o Improved Accuracy & MRR by 4.5% & 2% (16% & 7%) for Stackexchanges (SubReddits) respectively

• Popularity Predicting for Official Account Articles in WeChat Advisor: Peng He and Xiaofeng Gao

Tencent, Shenzhen (remote), China Jan. 2018 - Jun. 2018

• Found three powerful inductive factors for cascade diffusion: Influence, Attractiveness and Potentiality

- Inserted a hidden layer into Bayesian network structure, and used EM algorithm to train (ICDM acceptance)
- Reached a great performance at 92.96% in top-50 coverage of WeChat popular articles

#### • Information Dissemination in Social Networks

SJTU, Shanghai, China

Advisor: Xiaofeng Gao and Guihai Chen

Apr. 2017 - Jan. 2018

- Crawled data from Twitter, Weibo with API and filtered datasets for future use of laboratory research
- Employed survival theory, combining static and dynamic perspective for cascade dissemination (DEXA acceptance)
- Inspired by GAN, unified feature driven model and point process model in adversarial training (CIKM acceptance)
- o Found that model-free PP is better in short-period prediction and model-based PP is better in long-period prediction

# Honors & Scholarships

• SJTU Merit Student Award (Awarded to 4/97 students in major) 2016	, 2017, 2018
• Top-10 SJTU Merit Student Award (Awarded to 1/4689 student in department, 10 students in SJTU)	2018
• Rong Chang Innovation Scholarship (CNY ¥30,000. Awarded to 20 student scholars in SJTU)	2018
• Huawei Scholarship (Awarded to 4/97 students in major)	2017
• Kwang-Hua Scholarship (Awarded to 1/97 student in major)	2016

## Competitions

• 1st Prize, Mathematics Contest in Modeling (MCM) (Meritorious Winner, Top 8% globally)	2018
• 2nd Prize, China Undergraduate Mathematical Contest in Modeling (CUMCM)	2018
• 2nd Prize, Chinese Mathematics Competitions (CMC)	2017
• 3rd Prize, China Undergraduate Physics Competition (CUPC)	2016
• 3rd Prize, Shing-Tung Yau Science Awards (Yau Awards) (Top 5% in East, China)	2015
• 1st Prize, Chinese Mathematical Olympiad (CMO) (Top 0.1% in Zhejiang, China)	2014

# STUDENT TRAVEL GRANT

• Meng-Minwei Travel Grant (CNY ¥15,000. DEXA'18 Conference, Regensburg, Germany)	2018
• ACM SIGIR Travel Grant (USD \$1,000. CIKM'18 Conference, Turin, Italy)	2018
• Visiting Scholar Travel Grant (CNY ¥8,000. Research Intern at UIUC, IL, USA)	2018

# SOFTWARE ENGINEERING

# • Smart Car Remote Controller 🗘 🔾

SJTU, Shanghai, China

Sep. 2016 - Feb. 2017

- Group Leader, codes and demos are available

  Sep. 201

  Advisor: Dr. Shiwen Zhang, Professor and Senior Engineer at SEIEE, Shanghai Jiao Tong University
  - o Implemented an Android App using Java, Socket, Bluetooth to control a smart car wirelessly
  - Realized four control modes with monitor screen: direction button, voice (iFly Speech API), gesture shift, gravity sensor (3D Gyroscope), and realized video transmission
  - o Created a website with series of Html, JavaScript, Css files on a cloud server to present work
  - Got an A+ in this project and won an honor to show to the public

## Extracurriculum

- ACM Member (ID: 7074444), IEEE Member (ID: 95214155), CCF Member (ID: A0572G)
- Chief Editor: YIYOU (the most influential student publication on the campus)
- Volunteer: 2016 & 2017 Shanghai International Marathon, South Shanghai Railway Station
- Participant: 2015 & 2016 & 2017 "12 · 9" Campus Marathon, 2016 & 2017 & 2018 Labor Day Campus Marathon
- Class Secretary: Class F1503003, Shanghai Jiao Tong University
- Vice Monitor & Teaching Assistant in Math: Class 17, Shaoxing No.1 Middle School

## Skills & Interests

Coding: Python (Pytorch, Tensorflow), C/C++, Matlab Writing: Latex, Markdown Plotting: Seaborn, Highcharts Interests: Travel, Music, Sports (Orienteering, Badminton, Table Tennis, Swimming)