

# 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]  
Chaoqi Yang, Qitian Wu, Xiaofeng Gao, Guihai Chen. *The 29th International Conference on Database and Expert Systems Applications (DEXA)*. (Acceptance Rate 21.88%, 35/160)
  - I designed the algorithm; I implemented the experiments; I did all the paper writing and visualization.
- [2] **Adversarial Training Model Unifying Feature Driven and Point Process Perspectives for Event Popularity Prediction** [pdf]  
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)
  - I helped design the algorithm iteratively; I wrote Related Work part in paper; I implement part of the experiments; I did paper visualization.
- [3] **EPAB: Early Pattern Aware Bayesian Model for Social Content Popularity Prediction** [pdf]  
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)
  - I helped design the algorithm iteratively; I implement part of the experiments; I did paper visualization.

## SUBMISSION & WORKING

- [1] **MoTiAC: Multi-objective Actor-Critics for Real-time Bidding in Display Advertising** [pdf]  
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)
  - I designed the algorithm; I helped implemented the experiments; I did all the paper writing and visualization.
- [2] **A Graph Convolutional Approach to Answer Selection in Community Question Answering** [pdf]  
Kanika Narang, Chaoqi Yang, Adit Krishnan, Hari Sundaram, Carolyn Sutter. (Rejected by WWW2019, currently working for CIKM2019)
  - I designed the algorithm; I implemented the experiments; I 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
  - Improved Accuracy & MRR by 4.5% & 2% (16% & 7%) for Stackexchanges (SubReddits) respectively

- **Popularity Predicting for Official Account Articles in WeChat** **Tencent, Shenzhen (remote), China**  
**Advisor:** Peng He and Xiaofeng Gao *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)
  - Found that model-free PP is better in short-period prediction and model-based PP is better in long-period prediction

## HONORS & SCHOLARSHIPS

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- **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

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- **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

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- **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

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- **Smart Car Remote Controller** 📱 🚗 **SJTU, Shanghai, China**  
Group Leader, codes and demos are available *Sep. 2016 – Feb. 2017*
  - **Advisor:** *Dr. Shiwen Zhang*, Professor and Senior Engineer at SEIEE, Shanghai Jiao Tong University
  - 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
  - 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

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- **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

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