

# 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)
- **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*

## RESEARCH INTERESTS

- **Applications:** social networks analysis, computational advertising
- **Artificial Intelligence:** data mining, deep learning, reinforcement learning

## 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)
- [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)
- [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)

## SUBMISSION & WORKING

- [1] **Using Survival Theory in Early Pattern Detection for Viral Cascades** [pdf]  
Xiaofeng Gao, Xiaosong Jia, Chaoqi Yang, Guihai Chen. *IEEE International Transaction on Knowledge and Data Engineering (TKDE)*. (Under Review)
- [2] **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)
- [3] **A Graph Convolutional Approach to Answer Selection in Community Question Answering** [pdf]  
Kanika Narang, Chaoqi Yang, Adit Krishnan, Hari Sundaram, Carolyn Sutter. (Currently working)
- [4] **Using Multi-Task Learning Models for Click Through Rate and Conversion Rate Predictions** [pdf]  
Junwei Lu, Chaoqi Yang, Jiayi Liu, Liubin Wang, Haishan Liu. (Currently working)

## 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)*
  - Proposed feature share/transfer models for CTR and CVR prediction in a multi-task learning setting
  - Changed traditional 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
  - 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
  - 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, China**  
*Jan. 2018 – Jun. 2018*  
**Advisor:** Peng He and Xiaofeng Gao
  - Found three powerful inductive factors for cascade diffusion: *Influence, Attractiveness and Potentiality*
  - Proposed Bayesian structure learning for early pattern estimation of article popularity
- **Information Dissemination in Social Networks** **SJTU, Shanghai, China**  
*Apr. 2017 – Jan. 2018*  
**Advisor:** Xiaofeng Gao and Guihai Chen
  - 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
  - Unified feature driven model and point process model in adversarial training

## 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
  - **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

## SERVICES

- **ACM Member** (ID: 7074444), **IEEE Member** (ID: 95214155), **CCF Member** (ID: A0572G)
- **Reviewer:** *IEEE Transactions on Network Science and Engineering (TNSE'18)*  
*Telecommunication Systems (TELS'18)*  
*International Conference on Database Systems for Advanced Applications (DASFAA'19)*
- **Teaching Assistant:** C++ Programming (CS048), Principles of Database (IS214), Mobile Communications (IS401)
- **Lecturer:** Social Network Analysis, Winter Symposium in 2017, Advanced Network Lab
- **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)