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)
- 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**   [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)
- 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**   [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)
- 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**   [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)
- 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**   [pdf]
Kanika Narang, Chaoqi Yang, Adit Krishnan, Hari Sundaram, Carolyn Sutter. (Rejected by *WWW*2019, currently working for *CIKM*2019)
- 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 submission)
  - 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

- **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**
  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

- **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)