Hongyi Huang

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Institute for Interdisciplinary Information Sciences

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PROFILE

- Second year PhD student at Dr. Wenfei Wu's lab in Tsinghua University
- Research interest in networking function virtualization(modeling, orchestration, verification), network management and emerging P4 towards network improvement
- Following newly interconnections between AI technologies and networking

EDUCATION

Bachelor of Science in Computer Science and Technology   **2013 - 2017**

Beihang University *(abbreviated as BUAA; Beijing, China)*

PROFESSIONAL AND RESEARCH EXPERIENCE

Algorithm Design Intern, 2012 Lab, Huawei   **2018 - Present**

- Design DNN-based algorithm to detect anomalies regarding KPI data
- Join project that improves Variational Auto Encoder(VAE) for anomaly detection in time series (submitted to IJCAI'19)
- Designing solutions targeting fast construction and auto-generation of fault trees, which facilitates auto-healing in IT operations

Graduate Research Assistant, Tsinghua University   **2017 - Present**

- Give a talk about fast NF developing framework along with a poster show at *CoNEXT'17 Student Workshop*
- Developing NF abstractions for rapid development of portable NFs targeting incompatibility between NF logical development and runtime environment (NFD)
- Exploring efficient NF placement scheme that ports VNF into P4 switches
- Exploring solution for verification of Network Function with Petri-Net
- Data measurement using real-world Huawei APP market dataset

Graduate Teaching Assistant, Tsinghua University   **2017 - 2018**

- Security Technologies in Cyberspace, graduate course
- Fundamentals of Cryptography, undergraduate course

Undergraduate Project, Beihang University and Tsinghua University   **2016 - 2017**

- Investigate on the design and implementation of algorithm library and system for anomalous subgraph detection (Beihang, bachelor thesis; advised by Jianxin Li)
- Improve video quality of broadcaster in user-generated live streaming (Tsinghua, accepted by *IWQoS'18*; supervised by Yong Cui and Wenfei Wu)

Lab Assistant, Beihang University   **2015 - 2017**

- Carry out research on detecting abnormal subgraphs in heterogeneous networks by non-parametric statistics (accepted by *WWW'17*; supervised by Jianxin Li)
- Track moving trajectory from private location release with structured sparsity model (research paper; submitted to journal; supervised by Jianxin Li)
- Develop virtual fitting room with virtual reality technology (Co-PI; leading image recognition and classification; University-level Undergraduate Innovative Entrepreneurship Training Programs; supervised by Xiaowu Chen and Bin Zhou)
- Analyze traffic flows with GPS datasets captured by taxis in Beijing (Urban Computing Project; leading data cleaning and trajectory recovery; supervised by Jingyuan Wang)

HONORS AND AWARDS

- Outstanding Graduates of Beijing   **2017**
- Excellent Scholarship of BUAA   **2014, 2016**
- Beihang Friendship Scholarship — CASC Prize   **2016**
- Innovation Scholarship of BUAA   **2015, 2016**
- Social Works Scholarship of BUAA   **2014, 2016**
- Ranking top 5% at CCF Certified Software Professional   **2016**
- Achieving 572 at CET-4/ 550 at CET-6   **2014, 2016**
- 6th, 7th Lan Qiao Cup Programming Contest, Second Prize in Beijing   **2015, 2016**
- Excellent Freshman of BUAA   **2013**

PUBLICATIONS

Minglai Shao, Jianxin Li, Feng Chen, *Hongyi Huang*, Shuai Zhang, and Xunxun Chen. 2017. An Efficient Approach to Event Detection and Forecasting in Dynamic Multivariate Social Media Networks. In Proceedings of the 26th International Conference on World Wide Web (WWW '17). *(Second student author, CCF Rank **A**)*

Qingmei Ren, Yong Cui, Wenfei Wu, Changfeng Chen, Yuchi Chen, Jiangchuan Liu and *Hongyi Huang*. 2018. Improving Quality of Experience for Mobile Broadcasters in Personalized Live Video Streaming. In Quality of Service (IWQoS), 2018 IEEE/ACM 26rd International Symposium. *(CCF Rank **B**)*