

Xianghang Mi

[Email](#), [Homepage](#), [Google Scholar](#)

Research Interests

Network Security, IoT Security, and Cybercrime.

Work Experience

06/2019 – Now: Facebook, Inc

Research Scientist in Security Infrastructure
Distributed and continuous fuzzing platform, abuse detection.

05/2018 – 08/2018: Facebook, Inc

Software engineer intern in Community Integrity
Network entity reputation: understanding, prediction and application.

05/2017 – 07/2017: AT&T Research Lab

Research intern
Automatic onboarding of virtual network functions in cloud platforms
Deploy OpenStack, onboard VNFs and measure bottlenecks during VNF onboarding.

05/2014 – 05/2015: Baidu, Inc

Researcher & Software developer.
Developed the mobile website for Nuomi (Baidu's business-to-team group-buying service).
Engineered user account modules, improved the performance and robustness of the system.

Education

08/2015 – 06/2020: Indiana University, Bloomington IN

Ph.D. Degree, Department of Computer Science
Advisors: Professor XiaoFeng Wang, and Professor Feng Qian
Thesis: Characterizing Emerging Cybersecurity Threats: An Ecosystem Approach.

09/2009 – 06/2013: Beijing Institute of Technology, Beijing, China

B.S. Degree, Department of Software Engineering
GPA: 85 / 100 (3.5 / 4.5)
Thesis: An FTP server and client on Android platform.

HONORS AND AWARDS

2019 3rd Place (3 out of 80) in CSAW Applied Research Competition

2019 NDSS Distinguished Paper Award

Student Travel Grant: ACM CoNEXT 2016, CSAW'19.

2013 Excellent Undergraduate Thesis Award at Beijing Institute of Technology.

2010 National Motivational Scholarship at Beijing Institute of Technology.

PROFESSIONAL SERVICES

Reviewer: IEEE Transaction on Mobile Computing 2018.

External Reviewer: IEEE Security & Privacy 2020, ACM CHI 2020, ACM CCS 2019, IEEE INFOCOM 2019, NDSS 2019/2018, IEEE ICDCS 2017, ACM AsiaCCS 2016, BIGCOM 2016.

Conference and Workshop Program Committee: GenoPri 2020.

TEACHING

Guest Lectures: CSCI P438 (Computer Networks, IU, Fall 2016), CSCI P538 (Advanced Computer Networks, IU, Fall 2016/Fall 2017).

Selected Publications

Oakland'19, **Resident Evil: Understanding Residential IP Proxy as a Dark Service**

Xianghang Mi, Xuan Feng, Xiaojing Liao, Baojun Liu, Xiaofeng Wang, Feng Qian, Zhou Li, Sumayah Alrwais, Limin Sun, Ying Liu

IEEE Symposium on Security and Privacy 2019.

Acceptance Rate: 12% = 84/679.

IMC'17, **An Empirical Characterization of IFTTT: Ecosystem, Usage, and Performance**

Xianghang Mi, Feng Qian, Ying Zhang, and Xiaofeng Wang

ACM Internet Measurement Conference 2017, London, UK.

Acceptance Rate: 23.4% = 42/179.

CoNEXT'16, **SMig: Stream Migration Extension For HTTP/2**

Xianghang Mi, Feng Qian, and XiaoFeng Wang.

International Conference on emerging Networking EXperiments and Technologies 2016, Irvine, CA.

Acceptance Rate: 17.6% = 35/199.

Security'19, **Understanding iOS-based Crowdturfing through Hidden UI Analysis**

Yeonjoon Lee, Xueqiang Wang, Kwangwuk Lee, Xiaojing Liao, XiaoFeng Wang, Tongxin

Li, Xianghang Mi

USENIX Security Symposium (Security), 2019.

Acceptance Rate: 16% = 113/697.

Oakland'19, **Dangerous Skills: Understanding and Mitigating Security Risks of Voice-Controlled Third-Party Functions on Virtual Personal Assistant Systems, 3rd Place (3 out of 80) of CSAW'19 Applied Research Competition**

Nan Zhang, Xianghang Mi, Xuan Feng, XiaoFeng Wang, Yuan Tian, Feng Qian.

IEEE Symposium on Security and Privacy 2019.

Acceptance Rate: 12% = 84/679.

NDSS'19, **Cracking the Wall of Confinement: Understanding and Analyzing Malicious Domain Take-downs, Distinguished Paper Award**

Eihal Alowaisheq, Peng Wang, Sumayah A Alrwais, Xiaojing Liao, XiaoFeng Wang, Tasneem Alowaisheq, Xianghang Mi, Siyuan Tang, Baojun Liu

Network and Distributed System Security Symposium 2019, San Diego, CA.

Acceptance Rate: 17% = 89/521.

NDSS'18, **Game of Missuggestions: Semantic Analysis of Search-Autocomplete Manipulations**

Peng Wang, Xianghang Mi, Xiaojing Liao, XiaoFeng Wang, Kan Yuan, Feng Qian, and Raheem Beyah

Network and Distributed System Security Symposium 2018, San Diego, CA.

Acceptance Rate: 21.5% = 71/331.

Security'17, **Picking Up My Tab: Understanding and Mitigating Synchronized Token Lifting and Spending in Mobile Payment**

Xiaolong Bai, Zhe Zhou, XiaoFeng Wang, Zhou Li, Xianghang Mi, Nan Zhang, Tongxin Li, S. Hu, Kehuan, Zhang

USENIX Security Symposium 2017, VANCOUVER, BC, CANADA.

Acceptance Rate: 16.3% = 85/522.

Oakland'17, **Under the Shadow of Sunshine: Understanding and Detecting BulletProof Hosting on Legitimate Service Provider Networks**

Sumayah Alrwais, Xiaojing Liao, Xianghang Mi, Peng Wang, XiaoFeng Wang, Feng Qian, Raheem Beyah, Damon McCoy

IEEE Symposium on Security and Privacy 2017, San Jose, CA.

Acceptance Rate: 13% = 60/457.

arXiv'17, **Understanding IoT Security Through the Data Crystal Ball: Where We Are Now and Where We Are Going to Be**

Nan Zhang, Soteris Demetriou, Xianghang Mi, Wenrui Diao, Kan Yuan, Peiyuan Zong, Feng Qian, XiaoFeng Wang, Kai Chen, Yuan Tian, Carl A Gunter, Kehuan Zhang, Patrick Tague, Yue-Hsun Lin

arXiv preprint, 2017.