

Xianghang Mi

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Education

08/2015 – 05/2019: Indiana University, Bloomington IN

Ph.D. Student, Department of Computer Science, School of Informatics & Computing
Advisors: Professor Feng Qian and Professor XiaoFeng Wang
Research Areas: Cybercrime, IoT security, Network.

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

B.S. Degree, Department of Software Engineering
GPA: 85 / 100 (3.5 / 4.5)
Undergraduate Thesis: An FTP server and client on Android platform
Designed and implemented FTP/FTPS client and server software on Android platform.
Won the Excellent Undergraduate Thesis Award in Beijing Institute of Technology.

Work

06/2019 – Now: Facebook, Inc

Research Scientist in Security Infrastructure
Distributed and Continuous Fuzzing Platform

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.

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.

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

TEACHING

Guest Lecturer: CSCI P438 (Computer Networks, IU, Fall 2016), CSCI P538 (Advanced Computer

Networks, IU, Fall 2016/Fall 2017).

SKILLS

Security & Network: TLS(PKI), code analysis, network proxy protocols, cybercrime.

Programming Languages: C/C++, Python, Haskell, PHP, Bash, Javascript.

Artificial Intelligence: Machine Learning, Natural Language Processing.

Selected Publications

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.