

ZHOU (JOE) LI

Assistant Professor ◊ Electrical Engineering & Computer Science ◊ University of California, Irvine
3227 Engineering Hall, Irvine, CA, 92617, USA
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EDUCATION

Ph.D. in Computer Science, Indiana University Bloomington, IN 2014
- *Thesis: Understanding and Detecting Malicious Web Activities*
- *Advisor: XiaoFeng Wang*
M.Sc. in Computer Science, Wuhan University, China 2008
B.Sc. in Computer Science, Wuhan University, China 2006

EMPLOYMENT HISTORY

Department of EECS at UC Irvine Oct 2018 - Present
Assistant Professor Irvine, CA

- I am working on **system-security** research, with specific interests of **data-driven security analytics**, **Internet measurement**, **side-channel analysis** and **IoT security**.

RSA Laboratories Dec 2013 - Sept 2018
Principal Research Scientist Bedford, MA

- My research enables data-analytics capability of RSA products in identity management, endpoint monitor and enterprise SIEM.

Microsoft Research at Silicon Valley Sept 2011 - Nov 2011
Research Intern Mountain View, CA

- I developed a research prototype capable of discovering malicious online advertisements with high precision, working with my mentor Dr. Yinglian Xie and Dr. Fang Yu.

Indiana University Bloomington Jun 2009 - Nov 2013
Research Assistant Bloomington, IN

- I worked with my advisor Dr. XiaoFeng Wang on research topics including genome privacy, side-channel defense, browser security and data-driven analysis of cyber-criminal activities.

Indiana University Bloomington Aug 2008 - May 2009
Teaching Assistant Bloomington, IN

- I assisted the course instructors in course website design, grading, and lecturing.

RESEARCH PUBLICATIONS

+ **18** papers published or accepted at top-tier conferences in system security : 6 in IEEE S&P, 4 in Usenix Security, 7 in ACM CCS and 1 in NDSS.

+ Students advised at UCI “+”. Visitors advised at UCI “#”. Co-first-authors “*”.

Conferences

- [1] Zihan Zhang, Mingxuan Liu, Chao Zhang, Yiming Zhang, **Zhou Li**, Qi Li, Haixin Duan and Donghong Sun. *Argot: Generating Adversarial Readable Chinese Texts*. Accepted by the 29th International Joint Conference on Artificial Intelligence and the 17th Pacific Rim International Conference on Artificial Intelligence (**IJCAI’20**), Yokohama, Japan, July, 2020.

- [2] Yiming Zhang, Baojun Liu, Chaoyi Lu, **Zhou Li**, Haixin Duan, Shuang Hao, Mingxuan Liu, Ying Liu, Dong Wang and Qiang Li. *Lies in the Air: Characterizing Fake-base-station Spam Ecosystem in China*. Accepted by the 27th ACM Conference on Computer and Communications Security (**CCS'20**), Orlando, Florida, November, 2020.
- [3] Junyi Wei*, Yicheng Zhang+*, Zhe Zhou, **Zhou Li** and Mohammad Abdullah Al Faruque. *Leaky DNN: Stealing Deep-learning Model Secret with GPU Context-switching Side-channel*. In Proceedings of 50th IEEE/IFIP International Conference on Dependable Systems and Networks (**DSN'20**), Valencia, Spain, June, 2020.
- [4] Shuaike Dong#, **Zhou Li**, Di Tang, Jiongyi Chen, Menghan Sun and Kehuan Zhang. *Your Smart Home Can't Keep a Secret: Towards Automated Fingerprinting of IoT Traffic with Neural Networks*. In Proceedings of The 15th ACM ASIA Conference on Computer and Communications Security (**AsiaCCS'20**), Taipei, Taiwan, October, 2020.
- [5] Rebekah Houser, **Zhou Li**, Haining Wang and Chase Cotton. *An Investigation on Information Leakage of DNS over TLS*. In Proceedings of the 15th International Conference on emerging Networking EXperiments and Technologies (**CoNext'19**), Orlando, Florida, December, 2019.
- [6] Hao Yang, Kun Du, Yubao Zhang, Shuang Hao, **Zhou Li**, Mingxuan Liu, Haining Wang, Haixin Duan, Yazhou Shi, Xiaodong Su, Guang Liu and Zhifeng Geng. *Casino Royale: A Deep Exploration of Illegal Online Gambling*. In Proceedings of the 35th Annual Computer Security Applications Conference (**ACSAC'19**), San Juan, Puerto Rico, December, 2019.
- [7] Chaoyi Lu, Baojun Liu, **Zhou Li**, Shuang Hao, Haixin Duan, Mingming Zhang, Chunying Leng, Ying Liu, Zaifeng Zhang and Jianping Wu. *An End-to-End, Large-Scale Measurement of DNS-over-Encryption: How Far Have We Come?* In Proceedings of the Internet Measurement Conference (**IMC'19**), Amsterdam, Netherlands, October, 2019.
- ★ Nominee of the Best Paper Award (3 out of 39) and Community Contribution (2 out of 39).
- ★ One of Winners (6 out of 60) of Applied Networking Research Prize (ANRP 2020)
- [8] Kun Du, Hao Yang, **Zhou Li**, Haixin Duan, Shuang Hao, Baojun Liu, Yuxiao Ye, Mingxuan Liu, Xiaodong Su, Guang Liu, Zhifeng Geng, Zaifeng Zhang and Jinjin Liang. *TL;DR Hazard: A Comprehensive Study of Levelsquatting Scams*. In Proceedings of the 15th EAI International Conference on Security and Privacy in Communication Networks (**SecureComm'19**), Orlando, FL, Oct, 2019.
- [9] Wenrui Diao, Yue Zhang, Li Zhang, **Zhou Li**, Fenghao Xu, Xiaorui Pan, Xiangyu Liu, Jian Weng, Kehuan Zhang and XiaoFeng Wang. *Kindness is a Risky Business: On the Usage of the Accessibility APIs in Android*. In Proceedings of the 22nd International Symposium on Research in Attacks, Intrusions and Defenses (**RAID'19**), Beijing, China, September, 2019.
- [10] Baojun Liu, **Zhou Li**, Peiyuan Zong, Chaoyi Lu, Haixin Duan, Ying Liu, Sumayah Alrwais, XiaoFeng Wang, Shuang Hao, Yaoqi Jia, Yiming Zhang, Kai Chen and Zaifeng Zhang. *Traffick-Stop: Detecting and Measuring Illicit Traffic Monetization Through Large-scale DNS Analysis*. In Proceedings of the 4th IEEE European Symposium on Security and Privacy (**EuroS&P'19**), Stockholm, Sweden, June, 2019.
- [11] Xianghang Mi, Xuan Feng, Xiaojing Liao, Baojun Liu, Xiaofeng Wang, Feng Qian, **Zhou Li**, Sumayah Alrwais, Limin Sun and Ying Liu. *Resident Evil: Understanding Residential IP Proxy as a Dark Service*. In Proceedings of the 40th IEEE Symposium on Security and Privacy (**S&P'19**), San Francisco, CA, May 2019.
- [12] Fenghao Xu, Wenrui Diao, **Zhou Li**, Jiongyi Chen and Kehuan Zhang. *BadBluetooth: Breaking Android Security Mechanisms via Malicious Bluetooth Peripherals*. In Proceedings of the 26th Annual Network and Distributed System Security Symposium (**NDSS'19**), San Diego, CA, Feb

2019.

★ Vulnerability acknowledged by Google: CVE-2019-2225

- [13] Alina Oprea, **Zhou Li**, Kevin Bowers and Robin Norris. *MADE: Malicious Activity Detection in Enterprises*. In Proceedings of the 34th Annual Computer Security Applications Conference (**ACSAC'18**), San Juan, Puerto Rico, Dec. 2018.
- [14] Zhe Zhou, Di Tang, Wenhao Wang, XiaoFeng Wang, **Zhou Li** and Kehuan Zhang. *Beware of Your Screen: Anonymous Fingerprinting of Device Screens for Off-line Payment Protection*. In Proceedings of the 34th Annual Computer Security Applications Conference (**ACSAC'18**), San Juan, Puerto Rico, Dec. 2018.
- [15] Baojun Liu, Chaoyi Lu, Haixin Duan, Ying Liu, **Zhou Li**, Shuang Hao and Min Yang. *Who Is Answering My Queries: Understanding and Characterizing Interception of the DNS Resolution Path*. In Proceedings of the 27th USENIX Security Symposium (**Security'18**), Baltimore, MD, Aug 2018.
- [16] Ke Tian, **Zhou Li**, Kevin Bowers and Danfeng Yao. *FrameHanger: Evaluating and Classifying Iframe Injection at Large Scale*. In Proceedings of the 14th EAI International Conference on Security and Privacy in Communication Networks (**SecureComm'18**), Singapore, Singapore, August, 2018.
- [17] Shuaike Dong, Menghao Li, Wenrui Diao, Xiangyu Liu, Jian Liu, **Zhou Li**, Fenghao Xu, Kai Chen, XiaoFeng Wang and Kehuan Zhang. *Understanding Android Obfuscation Techniques: A Large-Scale Investigation in the Wild*. In Proceedings of the 14th EAI International Conference on Security and Privacy in Communication Networks (**SecureComm'18**), Singapore, Singapore, August, 2018.
- [18] Baojun Liu, Chaoyi Lu, **Zhou Li**, Ying Liu, Haixin Duan, Shuang Hao and Zaifeng Zhang. *A Reexamination of Internationalized Domain Names: the Good, the Bad and the Ugly*. In Proceedings of the 48th IEEE/IFIP International Conference on Dependable Systems and Networks (**DSN'18**), Luxembourg City, Luxembourg, June 2018.
- [19] Daiping Liu, **Zhou Li**, Kun Du, Haining Wang, Baojun Liu and Haixin Duan. *Don't Let One Rotten Apple Spoil the Whole Barrel: Towards Automated Detection of Shadowed Domains*. In Proceedings of the 24th ACM Conference on Computer and Communications Security (**CCS'17**), Dallas, TX, Oct. 2017.
- [20] Ahmet Salih Buyukkayhan, Alina Oprea, **Zhou Li** and William Robertson. *Lens on the endpoint: Hunting for malicious software through endpoint data analysis*. In Proceedings of the 20th International Symposium on Research in Attacks, Intrusions and Defenses (**RAID'17**), Atlanta, GA, Sept 2017.
- [21] Xiaolong Bai, Zhe Zhou, XiaoFeng Wang, **Zhou Li**, Xianghang Mi, Nan Zhang, Tongxin Li, Shi-Min Hu and Kehuan Zhang. *Picking Up My Tab: Understanding and Mitigating Synchronized Token Lifting and Spending in Mobile Payment*. In Proceedings of the 26th USENIX Security Symposium (**Security'17**), Vancouver, BC, Canada, Aug 2017.
- [22] Zhe Zhou, Wenrui Diao, Xiangyu Liu, **Zhou Li**, Kehuan Zhang and Rui Liu. *Vulnerable GPU Memory Management: Towards Recovering Raw Data from GPU*. In Proceedings of the 17th Privacy Enhancing Technologies Symposium (**PETS'17**), Minneapolis, MN, July 2017.
- [23] Hao Yang, Xiulin Ma, Kun Du, **Zhou Li**, Haixin Duan, Xiaodong Su, Guang Liu and Zhifeng Geng. *How to Learn Klingon Without a Dictionary: Detection and Measurement of Black Keywords Used by the Underground Economy*. In Proceedings of the 38th IEEE Symposium on Security and Privacy (**S&P'17**), San Jose, CA, May 2017.

- [24] Zhe Zhou, **Zhou Li** and Kehuan Zhang. *All Your VMs are Disconnected: Attacking Hardware Virtualized Network*. In Proceedings of the 7th ACM Conference on Data and Application Security and Privacy (**CODASPY'17**), Scottsdale, AZ, March 2017.
★ Vulnerability reported to Huawei and confirmed (**CVE-2017-2712**).
- [25] Sumayah Alrwais, Kan Yuan, Eihal Alowaisheq, Xiaojing Liao, Alina Oprea, XiaoFeng Wang and **Zhou Li**. *Catching Predators at Watering Holes: Finding and Understanding Strategically Compromised Websites*. In Proceedings of the 32nd Annual Computer Security Applications Conference (**ACSAC'16**), Los Angeles, CA, Dec. 2016.
- [26] **Zhou Li** and Alina Oprea. *Operational Security Log Analytics for Enterprise Breach Detection*. In Proceedings of IEEE Cybersecurity Development Conference 2016 (**SecDev'16**), Boston, MA, Nov. 2016.
- [27] Xiaojing Liao, Kan Yuan, XiaoFeng Wang, **Zhou Li**, Luyi Xing and Raheem Beyah. *Acing the IOC Game: Toward Automatic Discovery and Analysis of Open-Source Cyber Threat Intelligence*. In Proceedings of the 23rd ACM Conference on Computer and Communications Security (**CCS'16**), Vienna, Austria, Oct. 2016.
★ NYU-Poly Best Applied Security Paper 3rd place, 2016.
- [28] Kun Du, Hao Yang, **Zhou Li**, Haixin Duan and Kehuan Zhang. *The Ever-changing Labyrinth: A Large-scale Analysis of Wildcard DNS Powered Blackhat SEO*. In Proceedings of the 25th USENIX Security Symposium (**Security'16**), Austin, TX, Aug. 2016.
- [29] Wenrui Diao, Xiangyu Liu, **Zhou Li** and Kehuan Zhang. *Evading Android Runtime Analysis Through Detecting Programmed Interactions (Short Paper)*. In Proceedings of the 9th ACM Conference on Security and Privacy in Wireless and Mobile Networks (**WiSec'16**), Darmstadt, Germany, July 2016.
- [30] Wenrui Diao, Xiangyu Liu, **Zhou Li** and Kehuan Zhang. *No Pardon for the Interruption: New Inference Attacks on Android Through Interrupt Timing Analysis*. In Proceedings of the 37th IEEE Symposium on Security and Privacy (**S&P'16**), San Jose, CA, May 2016.
- [31] Xiangyu Liu, Zhe Zhou, Wenrui Diao, **Zhou Li** and Kehuan Zhang. *When Good Becomes Evil: Keystroke Inference with Smartwatch*. In Proceedings of the 22nd ACM Conference on Computer and Communications Security (**CCS'15**), Denver, CO, Oct. 2015.
- [32] Wenrui Diao, Xiangyu Liu, Zhe Zhou, Kehuan Zhang and **Zhou Li**. *Mind-Reading: Privacy Attacks Exploiting Cross-App KeyEvent Injections*. In Proceedings of the 20th European Symposium on Research in Computer Security (**ESORICS'15**), Vienna, Austria, Sept. 2015.
- [33] Alina Oprea, **Zhou Li**, Ting-Fang Yen, Sang Chin and Sumayah Alrwais. *Detection of Early-Stage Enterprise Infection by Mining Large-Scale Log Data*. In Proceedings of 45th IEEE/IFIP International Conference on Dependable Systems and Networks (**DSN'15**), Rio de Janeiro, Brazil, June 2015.
- [34] Xiangyu Liu, Zhe Zhou, Wenrui Diao, **Zhou Li** and Kehuan Zhang. *An Empirical Study on Android for Saving Non-shared Data on Public Storage*. In Proceedings of the 30th International Information Security and Privacy Conference (**IFIP SEC'15**), Hamburg, Germany, May 2015.
- [35] Mohammad Taha Khan, Xiang Huo, **Zhou Li** and Chris Kanich. *Every Second Counts: Quantifying the Negative Externalities of Cybercrime via Typosquatting*. In Proceedings of the 36th IEEE Symposium on Security and Privacy (**S&P'15**), San Jose, CA, May 2015.
- [36] Sumayah Alrwais, Kan Yuan, Eihal Alowaisheq, **Zhou Li**, and XiaoFeng Wang. *Understanding the Dark Side of Domain Parking*. In Proceedings of the 23rd Usenix Security Symposium (**Security'14**), San Diego, CA, Aug. 2014.

- [37] **Zhou Li**, Sumayah Alrwais, XiaoFeng Wang and Eihal Alowaisheq. *Hunting the Red Fox Online: Understanding and Detection of Mass Redirect-Script Injections*. In Proceedings of the 35th IEEE Symposium on Security and Privacy (**S&P'14**), San Jose, CA, May 2014.
- [38] **Zhou Li**, Sumayah Alrwais, Yinglian Xie, Fang Yu and XiaoFeng Wang. *Finding the Linchpins of the Dark Web: a Study on Topologically Dedicated Hosts on Malicious Web Infrastructures*. In Proceedings of the 34th IEEE Symposium on Security and Privacy (**S&P'13**), San Francisco, CA, May 2013.
★ NYU-Poly Best Applied Security Paper Top 10 Finalists, 2013.
- [39] **Zhou Li**, Kehuan Zhang, Yinglian Xie, Fang Yu and XiaoFeng Wang. *Knowing Your Enemy: Understanding and Detecting Malicious Web Advertising*. In Proceedings of the 19th ACM Conference on Computer and Communications Security (**CCS'12**), Raleigh, NC, Oct. 2012.
- [40] **Zhou Li** and XiaoFeng Wang, *FIRM: Capability-based Inline Mediation of Flash Behaviors*. In Proceedings of the 26th Annual Computer Security Applications Conference (**ACSAC'10**), Austin, TX, Dec. 2010.
- [41] Kehuan Zhang, **Zhou Li**, Rui Wang, XiaoFeng Wang and Shuo Chen. *Sidebuster: Automated Detection and Quantification of Side-Channel Leaks in Web Application Development*. In Proceedings of the 17th ACM Conference on Computer and Communications Security (**CCS'10**), Chicago, IL, Oct. 2010.
- [42] **Zhou Li**, Kehuan Zhang and XiaoFeng Wang. *Mash-IF: Practical Information-Flow Control within Client-side Mashups*. In Proceedings of the 40th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (**DSN'10**), Chicago, IL, June 2010.
- [43] Rui Wang, XiaoFeng Wang, **Zhou Li**, Haixu Tang, Michael Reiter and Zheng Dong. *Privacy-Preserving Genomic Computation Through Program Specialization*. In Proceedings of the 16th ACM Conference on Computer and Communications Security (**CCS'09**), Chicago, IL, Nov. 2009.
- [44] Jianming Fu, Huijun Xiong, **Zhou Li** and Huanguo Zhang, *PerformTrust: Trust model integrated past and current performance in P2P file sharing systems*. In Proceedings of the 6th IEEE/ACS International Conference on Computer Systems and Applications (AICCSA'08), Doha, Qatar, Mar. 2008.
- [45] **Zhou Li**, Yiwen Liang, Zejun Wu and Chengyu Tan. *Immunity based Virus Detection with Process Call Arguments and User Feedback*. In Proceedings of the 2nd International Conference on Bio-Inspired Models of Network, Information, and Computing Systems (Bionetics'07), Budapest, Hungary, Dec. 2007.

Workshops

- [1] Wei Liu, Yueqian Zhang, **Zhou Li** and Haixin Duan. *What You See Isn't Always What You Get: A Measurement Study of Usage Fraud on Android Apps*. In Proceedings of the 6th Annual ACM CCS Workshop on Security and Privacy in Smartphones and Mobile Devices (**SPSM'16**), Vienna, Austria, Oct. 2016.

Journals

- [1] Wenrui Diao, Rui Liu, Xiangyu Liu, Zhe Zhou, **Zhou Li** and Kehuan Zhang. *Assessing mobile user's privacy based on IME personalization: Understanding and practical attacks*. In Journal of Computer Security, vol. 26, no. 3, pp. 283-309, 2018.
- [2] Fan Zhang, Wenbo He, Yangyi Chen, **Zhou Li**, XiaoFeng Wang, Shuo Chen and Xue Liu. *Thwarting Wi-Fi Side-Channel Analysis through Traffic Demultiplexing*. In IEEE Transactions on Wireless Communications, vol.13, no.1, 2014.

Industrial and Community Conferences/Workshops

- [1] Presenter: Shuang Hao. *An End-to-End, Large-Scale Measurement of DNS-over-Encryption: How Far Have We Come?* **DNS-OARC 31 Workshop**, Austin, TX, Oct., 2019.
- [2] Presenter: **Zhou Li**. *Who Is Answering My Queries: Understanding and Characterizing Interception of the DNS Resolution Path*. Applied Networking Research Workshop (**ANRW 2019**), Montreal, Quebec, Canada, July, 2019.
- [3] Presenter: Chaoyi Lu. *Who Is Answering My Queries: Understanding and Characterizing Interception of the DNS Resolution Path*. **DNS-OARC 30 Workshop**, Bangkok, Thailand, May, 2019.
- [4] Presenter: Zhe Zhou. *All Your Payment Tokens Are Mine: Vulnerabilities of Mobile Payment Systems*. **Blackhat Asia 2018**, Singapore, Mar. 2018.

PATENTS

- [1] **Zhou Li**, Alex Zaslavsky and Kevin Bowers. *US-20200106781: Data-driven attribute selection for user application entitlement analysis*. Granted in 2020.
- [2] **Zhou Li**, Kevin Bowers, Martin Rosa, Raymond Carney and Ke Tian. *US-20200104488: Detecting frame injection through web page analysis*. Granted in 2020.
- [3] **Zhou Li**, Martin Rosa, and Zohar Duchin. *US-10437996: Classifying software modules utilizing similarity-based queries*. Granted in 2019.
- [4] **Zhou Li**, *US-10382476: Network security system incorporating assessment of alternative mobile application market sites*. Granted in 2019.
- [5] **Zhou Li**, *US-10250621: Automatic extraction of indicators of compromise from multiple data sources accessible over a network*. Granted in 2019.
- [6] Alina Oprea, **Zhou Li** and Ahmet Buyukkayhan, *US-10122742: Classifying software modules based on comparisons using a neighborhood distance metric*. Granted in 2018.
- [7] Ahmet Buyukkayhan, **Zhou Li**, Alina Oprea and Martin Rosa, *US-9998484: Classifying potentially malicious and benign software modules through similarity analysis*. Granted in 2018.
- [8] Alina Oprea, **Zhou Li**, Robin Norris, and Kevin D Bowers, *US-9838407: Detection of malicious web activity in enterprise computer networks*. Granted in 2017.
- [9] Alina Oprea, Sumayah Alrwais, Kevin D Bowers, Todd S Leetham, **Zhou Li** and Ronald L Rivest, *US-9621576: Detecting malicious websites*. Granted in 2017.
- [10] Alina Oprea, **Zhou Li**, Sang H Chin and Ting-Fang Yen, *US-9635049: Detection of suspicious domains through graph inference algorithm processing of host-domain contacts*. Granted in 2017.
- [11] Yinglian Xie, Fang Yu, **Zhou Li** and Xiaofeng Wang, *US-20130339158: Determining legitimate and malicious advertisements using advertising delivery sequences*. Granted in 2013.

TEACHING

University of California, Irvine

Instructor

Jan 2019 - Present

Irvine, CA

- EECS 40 (Object-Oriented Systems and Programming; Graduate-level) at Spring 2020.
- EECS 221 (Advanced System Security; Graduate-level) at Winter 2019, Fall 2019.
- EECS 195 (System Security; Undergraduate-level) at Spring 2019, Fall 2019.

Indiana University Bloomington

Teaching Assistant

Aug 2008 - May 2009

Bloomington, IN

- A110 (Introduction to Computers & Computing; Undergraduate-level) at Fall 2008.
- B501 (Theory of Computing; Graduate-level) at Spring 2009.

Wuhan University
Teaching Assistant

Sept 2006 - Jan 2007
Wuhan, China

- Java Programming; Undergraduate-level.

STUDENTS ADVISED

Ph.D. students at UC Irvine

- [1] Joann Chen, starting from Fall 2019.
- [2] Yicheng Zhang, starting from Fall 2018.

Visitors at UC Irvine

- [1] Fenghao Xu (Ph.D.) from The Chinese University of Hong Kong, 2019.
- [2] Shuaike Dong (Ph.D.) from The Chinese University of Hong Kong, 2019.
- [3] Deliang Chang (Ph.D.) from Tsinghua University, 2019-2020.

Students interned at RSA

- [1] Ke Tian (Ph.D.) from Virginia Tech, interned in 2017.
- [2] Ahmet Salih Buyukkayhan (Ph.D.) from Northeastern University, interned in 2015.
- [3] Sumayah Alrwais (Ph.D.) from Indiana University Bloomington, interned in 2014.

SERVICES

Program Committee Chair

- [1] Security in Machine Learning and its Applications (SiMLA) 2020, co-located with ACNS 2020.
- [2] Security in Machine Learning and its Applications (SiMLA) 2019, co-located with ACNS 2019.

Program Committee

- [1] **ACM CCS 2020, 2019, 2018, 2017, 2016**
- [2] **NDSS 2021, 2020, 2019, 2018**
- [3] **USENIX Security Symposium 2015**
- [4] AsiaCCS 2021, 2016
- [5] IEEE DSN 2020
- [6] ACNS 2020
- [7] ICICS 2019
- [8] IEEE DSC 2018, 2017
- [9] IWSEC 2018, 2017, 2016
- [10] IEEE SecDev 2018
- [11] Network Forensics Workshop at IEEE CNS 2016
- [12] SecureComm 2015

[13] MLHat 2020

[14] CCSW 2020

External Reviewer

- [1] IEEE S&P, USENIX Security, ACM CCS, NDSS, WWW, DSN, ICDCS, ASIA-CCS, SecureComm, RAID, SIGMETRICS, WPES

Journal Reviewer

- [1] IEEE Internet of Things Journal
- [2] IEEE Design & Test
- [3] IEEE Transactions on Biometrics, Behavior, and Identity Science (TBIOM)
- [4] ACM Transactions on Information and System Security (TISSEC)
- [5] ACM Transactions on Privacy and Security (TOPS)
- [6] IEEE Transactions on Information Forensics & Security (TIFS)
- [7] IEEE Transactions on Dependable and Secure Computing (TDSC)

Panelist for Reviewing Proposals

- [1] NSF, 2019

Panel Moderator

- [1] NSF SpecEES PI Meeting 2020

Volunteer

- [1] RSA Conference 2017 Session Facilitator

TALKS

An End-to-End Large-Scale Measurement of DNS-over-Encryption: How Far Have We Come?

- DCAPS, DC, Dec. 2019

Who Is Answering My Queries: Understanding and Characterizing Interception of the DNS Resolution Path.

- ANRW, Montreal, CA, July, 2019

Towards a Trustworthy DNS Infrastructure Why is it hard and where are we now?

- Palo Alto Networks, Santa Clara, Aug., 2019
- Tsinghua University, Beijing, June, 2019

BadBluetooth: Breaking Android Security Mechanisms via Malicious Bluetooth Peripherals.

- Inforsec RAID19 workshop, Beijing, Sept. 2019
- Qualcomm, San Diego, Mar. 2019

Big-Data Security Research Meets Enterprise: Challenges and Opportunities.

- University of Massachusetts Lowell, Nov. 2016
- Baidu Inc., China, Apr. 2016

- BU/MIT LL Cybersecurity Workshop, Boston, Jan. 2016

Every Second Counts: Quantifying the Negative Externalities of Cybercrime via Typosquatting.

- Chinese Academy of Sciences, China, Nov. 2015

Understanding and Detecting Malicious Activities in Internet.

- The Chinese University of Hong Kong, China, Jan 2015
- Tsinghua University, China, Dec 2014

Understanding and Detecting Malicious Activities in Web.

- IBM Research, Apr 2013
- RSA Labs, Apr 2013

AWARDS

Corporation

- Excellence@EMC Silver Award, *Watering-hole Attacks Detection*, May 2015
- Excellence@EMC Silver Award, *RSA Challenge Judging*, Aug 2014
- Excellence@EMC Gold Award, *APT Communication Detection*, Feb 2014

Academia

- IRTF ANRP'2020 prize winner
- ACM IMC'19 Nominee of the Best Paper Award and Community Contribution, 2019
- CCS'16 work selected to showcase in Defense Innovation Technology Challenge, 2017
- NYU-Poly Best Applied Security Paper 3rd place, 2016
- Finalists in Computational Cybersecurity in Compromised Environments (C3E) challenge, 2014
- Top 7 Finalists for the 8th Annual National Security Innovation Competition (NSIC), 2014
- NYU-Poly Best Applied Security Paper Top 10 Finalists, 2013
- Student Travel Grant, ACSAC 2010
- Student Travel Grant, DSN 2010
- Student Travel Grant, Usenix Security 2009

Scholarship

- Computer World Scholarship (China), 2006
- Wuhan University Scholarship (China), 2003, 2004, 2005, 2007

MEMBERSHIP

IEEE Senior Member, ACM Member, AAAS Member.

MEDIA COVERAGE

Study of DNS over TLS.

- Blogged by APNIC, 2020

Anonymity of mobile payment.

- Reported by the packtpub, 2018

Measurement about DNS path manipulation.

- Blogged by APNIC, 2019
- Reported by the register, hackerread, ACM technews, Helpnet Security, ..., 2018

Attacks against mobile payments.

- Reported by the register, cyware, dark readings, ..., 2018

Study on Black Keywords.

- Reported by media in China, including citnews.com, 91.com, china.com, techweb.com, ..., 2017

Watering-hole attacks exploiting JSONP hijacking to track users in China.

- Reported by AlienVault, New York Times, ComputerWeekly, The Register, InfoSecurity, SecurityWeek, ..., 2015

Measurement on typo-squatting.

- Reported by CircleID, 2015

RSA rises to the challenge of APTs.

- Reported by RSA Press Blogs, 2014

Facebook vulnerability discovered.

- Reported by ACM TechNews, Computer World, The Register, IU News Room, IDS, Sophos, TechWorld, ..., 2011