

# Chaoyi Lu

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## EDUCATION

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### 2017 – Present: Tsinghua University

PhD candidate, Institute for Network Sciences and Cyberspace

Advisors: Prof. Haixin Duan and Prof. Jianping Wu

Research Areas: Network security, Internet measurement

### 2013 – 2017: Beijing University of Posts and Telecommunications

B.Eng. in Information Security, School of Cyberspace Security

## PUBLICATIONS

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### Conference Papers

- [10] **[CCS '21]** Yiming Zhang, Baojun Liu, **Chaoyi Lu**, Zhou Li, Haixin Duan, Jiachen Li and Zaifeng Zhang. **Rusted Anchors: A National Client-Side View of Hidden Root CAs in the Web PKI Ecosystem**. To appear in the 28th ACM Conference on Computer and Communications Security, Virtual event, November 2021.
- [9] **[NDSS '21]** **Chaoyi Lu**, Baojun Liu, Yiming Zhang, Zhou Li, Fenglu Zhang, Haixin Duan, Ying Liu, Joann Qionga Chen, Jinjin Liang, Zaifeng Zhang, Shuang Hao and Min Yang. **From WHOIS to WHOWAS: A Large-Scale Measurement Study of Domain Registration Privacy under the GDPR**. In Proceedings of the Network and Distributed System Security Symposium 2021, Virtual event, February 2021.
  - *Included by Cybercrime Digest of Cybercrime Programme Office of the Council of Europe and CERT-CE's weekly letter*
- [8] **[USENIX Security '21]** Kaiwen Shen, Chuhan Wang, Xiaofeng Zheng, Minglei Guo, **Chaoyi Lu**, Baojun Liu, Yuxuan Zhao, Shuang Hao, Haixin Duan, Qingfeng Pan and Min Yang. **Weak Links in Authentication Chains: A Large-scale Analysis of Email Sender Spoofing Attacks**. To appear in the 30th USENIX Security Symposium, Vancouver, BC, Canada, August 2021.
- [7] **[CCS '20]** Mingming Zhang, Xiaofeng Zheng, Kaiwen Shen, Ziqiao Kong, **Chaoyi Lu**, Yu Wang, Haixin Duan, Shuang Hao, Baojun Liu and Min Yang. **Talking with Familiar Strangers: An Empirical Study on HTTPS Context Confusion Attacks**. In Proceedings of the 27th ACM Conference on Computer and Communications Security, Virtual event, November 2020.
- [6] **[CCS '20]** 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**. In Proceedings of the 27th ACM Conference on Computer and Communications Security, Virtual event, November 2020.
- [5] **[USENIX Security '20]** Xiaofeng Zheng, **Chaoyi Lu**, Jian Peng, Qiushi Yang, Dongjie Zhou, Baojun Liu, Keyu Man, Shuang Hao, Haixin Duan and Zhiyun Qian. **Poison Over Troubled Forwarders: A Cache Poisoning Attack Targeting DNS Forwarding Devices**. In Proceedings of the 29th USENIX Security Symposium, Virtual event, August 2020.
  - *Community & industrial conferences: ICANN DNS Symposium 2021*

- [4] [\[IMC '19\]](#) [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, Amsterdam, Netherlands, October 2019.
  - [Winner of IRTF Applied Networking Research Prize \(ANRP\) 2020](#)
  - [Distinguished Paper Award Nominee & Community Contribution Award Nominee](#)
  - [Community & industrial conferences: IETF 108 and DNS-OARC 31](#)
- [3] [\[EuroS&P '19\]](#) 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. **TrafficStop: Detecting and Measuring Illicit Traffic Monetization Through Large-scale DNS Analysis**. In Proceedings of the 4th IEEE European Symposium on Security and Privacy, Stockholm, Sweden, June 2019.
- [2] [\[USENIX Security '18\]](#) 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, Baltimore, MD, USA, August 2018.
  - [Community & industrial conferences: ACM/IRTF ANRW '19 and DNS-OARC 30](#)
- [1] [\[DSN '18\]](#) 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, Luxembourg City, Luxembourg, June 2018.

## Workshop Paper

- [1] [\[FOCI '18\]](#) Mingming Zhang, Baojun Liu, [Chaoyi Lu](#), Jia Zhang, Shuang Hao and Haixin Duan. **Measuring Privacy Threats in China-Wide Mobile Networks**. 8th USENIX Workshop on Free and Open Communications on the Internet, Baltimore, MD, USA, August 2018.

## EXTERNAL REVIEWERS

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Conferences: NDSS '22/'20, ICDCS '21, DSN '20, CCS '19, ESORICS '19, ICICS '19  
 Workshops: WPES '21, IoT S&P '18, RESEC '18  
 Journal: IEEE TNSM 2020

## AWARDS

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### Academia

IRTF Applied Networking Research Prize (ANRP) (2020)  
 IMC Nominee of Distinguished Paper Award & Community Contribution Award (2019)  
 DSN Student Travel Grant (2018)

### Scholarships, Contests & Others

1st Class Scholarship of Tsinghua University (2020)  
 Cyber Security Scholarship of China Internet Development Foundation (2016)  
 Scholarship of Beijing University of Posts and Telecommunications (2014, 2015, 2016)  
 1st Prize, The 5<sup>th</sup> Competition of Next Generation Internet Technology Innovation (2019)  
 Bronze, CCF Collegiate Computer Systems & Programming Contest (2016)  
 2nd Prize, National College Student Information Security Contest (2016)  
 Honorable Mention, The Mathematical Contest in Modeling (2016)  
 Excellent Undergraduate Award, Beijing Municipal Commission of Education (2017)