# JIAN QU

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## **EDUCATION**

Xi'an Jiaotong University, Xian, China

2021 - Present

Ph.D, School of Computer Science and Technology, Anticipated Graduation Date: 2025

Xi'an Jiaotong University, Xian, China

2019 - 2021

M.S., School of Cyber Science and Engineering

Xi'an Jiaotong University, Xian, China

2013 - 2019

B.S., School of Computer Science and Technology (The Honors Youth Program)

# **m** Publications

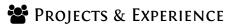
- [1] **Qu, J.**, Ma, X., Liu, W., Sang, H., Li, J., Xue, L., ... & Guan, X. (2022) Landing Reinforcement Learning onto Smart Scanning of The Internet of Things. In IEEE INFOCOM 2022-IEEE Conference on Computer Communications. (CCF A)
- [2] Ma, X., Qu, J., Li, J., Lui, J. C., Li, Z., Liu, X., & Guan, X. (2021) Inferring Hidden IoT Devices and User Interactions via Spatial-temporal Traffic Fingerprinting. In IEEE/ACM Transactions on Networking, vol. 30, no. 1, pp. 394-408. (CCF A, student first author)
- [3] Ma, X., Qu, J., Li, J., Lui, J. C., Li, Z., & Guan, X. (2020). Pinpointing Hidden IoT Devices via Spatial-temporal Traffic Fingerprinting. In IEEE INFOCOM 2020-IEEE Conference on Computer Communications. (CCF A, student first author)
- [4] Ma, X., Qu, J., Chen, F., Liu, W., Li, J., Tao, J., ... & Zhang, Z. L. (2021). One Host with So Many IPs! On The Security Implications of Dynamic Virtual Private Servers. IEEE Communications Magazine, vol. 59, no. 2, pp. 64-69. (JCR Q1, student first author, IF = 9.619)
- [5] **Qu, J.**, Ma, X., Liu, W. (2021). Querent-centric Domain Name System Modeling and Its Application in Passive Software Discovery. In 2021 8th International Conference on Dependable Systems and Their Applications (DSA). (EI)
- [6] Wang, X., Ma, X., & **Qu, J.** (2021). A Link Flooding Attack Detection Method based on Non-Cooperative Active Measurement. In 2021 8th International Conference on Dependable Systems and Their Applications (DSA). (EI, student second author)
- [7] **Qu, J.**, Ma, X., Liu, W. (2022). Who Is DNS Serving For? A Human-Software Perspective of Modeling DNS Services. In Transactions on Services Computing. (CCF B, under review)
- [8] Ma, X., Qu, J., Shi, M., …& Guan, X. (2022) Website Fingerprinting over Encrypted Proxies: A Context-aware Approach and Countermeasures. In IEEE Transactions on Dependable and Secure Computing. (CCF A, student first author, major revision)
- [9] **Qu, J.**, Ma, X., Li, J., Luo, X., ··· & Guan, X. (2022) A General Framework for Landing Deep Learning onto Traffic Fingerprinting. In USENIX Security'22 (CCF A, major revision)

#### i Chinese Patents

- Granted: A fingerprinting method of IoT devices based on spontaneous traffic. ZL201911404458.2
- Granted: A sequence feature extraction method for fingerprinting IoT devices. ZL201911385226.7
- Published: Method, system and computer-readable storage medium for multi sequence matching. 2021104373114
- Published: Method, system and computer-readable storage medium for detecting reverse proxy. 2021104835289

## Awards and Achievements

| • Provincial first prize, China Undergraduate Mathematical Contest in Modeling    | 2017 |
|---|------|
| • The Second Prize, the 18th China Post-Graduate Mathematical Contest in Modeling | 2021 |
| SiYuan Scholarship  | 2017 |
| The Third Prize Scholarship   | 2018 |
| The Second Prize Scholarship  | 2019 |
| Special Prize Scholarship, Outstanding Graduate                                   | 2020 |



# Scheduling of active IOT devices scanning in IPv4 space. Principal Investigator Fundamental Research Funds for the Central Universities The technology and system for fingerprinting IoT devices. Major Participant National Key R&D Program of China 08/2021 – 12/2022 01/2020 – 07/2022