QIYANG SONG

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EDUCATION

- **Institute of Information Engineering, Chinese Academy of Sciences** *2022 - Present*
  Ph.D. student in Cyber Security
  GPA: 3.85/4.0
- **Tsinghua University** *2017 - 2020*
  M.S. in Computer Science and Technology
- **University of Electronic and Science Technology of China (UESTC)** *2013 - 2017*
  B.S. in Information Security

EXPERIENCE

- **George Mason University (GMU)** *2021 - 2022*
  Research Assistant in Center for Secure Information Systems (CSIS)
  Research on Data Security for Machine Learning

RESEARCH INTERESTS

My research interests are centered on data security and system security. During my Master's program at Tsinghua and my research assistantship at GMU, I primarily focused on cloud data security, ensuring the privacy and security of machine learning data during its transmission.

In my doctoral studies, my attention shifted to system security, specifically concerning the security of decentralized systems. I have optimized vulnerability detection for smart contracts by employing graph learning techniques, which significantly enhanced the accuracy of detection tools **<empty citation>** Additionally, I focus on utilizing machine learning methods to refine existing log-based intrusion detection systems. The selected publications [1]–[8] are presented as follows.

PUBLICATIONS

[1] **Song, Qiyang**, H. Huang, X. Jia, Y. Xie, and J. Cao, "Silence false alarms: Identifying anti-reentrancy patterns on ethereum to refine smart contract reentrancy detection," in *to Appear in Network and Distributed System Security (NDSS) Symposium 2025*, 2025.

[2] **Song, Qiyang**, Z. Liu, J. Cao, K. Sun, Q. Li, and C. Wang, "Sap-sse: Protecting search patterns and access patterns in searchable symmetric encryption," *IEEE Transactions on Information Forensics and Security (TIFS)*, vol. 16, pp. 1795–1809, 2020.

[3] **Song, Qiyang**, J. Cao, K. Sun, Q. Li, and K. Xu, "Try before you buy: Privacy-preserving data evaluation on cloud-based machine learning data marketplace," in *Proceedings of the 37th Annual Computer Security Applications Conference (ACSAC)*, 2021, pp. 260–272.

[4] H. Li, **Song, Qiyang**, G. Li, Q. Li, and R. Wang, "Gpsc: A grid-based privacy-reserving framework for online spatial crowdsourcing," *IEEE Transactions on Knowledge and Data Engineering*, vol. 34, no. 11, pp. 5378–5390, 2021.

[5] S. Liu, **Song, Qiyang**, K. Sun, and Q. Li, "Sgx-cube: An sgx-enhanced single sign-on system against server-side credential leakage," in *Security and Privacy in Communication Networks: 16th EAI International Conference, SecureComm 2020, Washington, DC, USA, October 21-23, 2020, Proceedings, Part II 16*, Springer, 2020, pp. 275–290.

[6] I. Choi, **Song, Qiyang**, and K. Sun, "Federated-cloud based deep neural networks with privacy preserving image filtering techniques," in *2019 IEEE Conference on Dependable and Secure Computing (DSC)*, IEEE, 2019, pp. 1–8.

[7] P. Han, C. Liu, Y. Dong, H. Pan, **Song, QiYang**, and B. Fang, "Filecrypt: Transparent and scalable protection of sensitive data in browser-based cloud storage," in *2019 IEEE Conference on Communications and Network Security (CNS)*, IEEE, 2019, pp. 46–54.

[8] S. Yao, M. Xu, Q. Li, J. Cao, and **Song, Qiyang**, "Csfc: Building credible service function chain on the cloud," in *2019 IEEE Global Communications Conference (GLOBECOM)*, IEEE, 2019, pp. 1–6.

SELECTED HONORS AND AWARDS

- Grand Prize of National Internet Innovation Competition, Ministry of Education of China *2018*
- Academic Fellowship, Tsinghua University *2017*
- National Undergraduate Scholarship, Ministry of Education of China *2015*
- Outstanding Undergraduate Thesis, UESTC *2017*
- Excellence Award of Innovation and Entrepreneurship Competition, UESTC *2015*

COMMUNITY SERVICES

Journal External Reviewer	IEEE Transactions on Dependable and Secure Computing (TDSC), IEEE Transactions on Information Forensics and Security (TIFS)
Conference External Reviewer	NDSS 2020, INFOCOM 2020