

# Haohuang Wen

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## Education

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**South China University of Technology**

*B.Eng. in Software Engineering, Excellent Engineer Class (GPA:3.8/4.0)*

**Guangzhou, China**

*Sep 2014 - July 2018*

**The Ohio State University**

*Ph.D. in Computer Science and Engineering (GPA:3.9/4.0)*

**Columbus, US**

*Aug 2018 - Present*

## Research Interest

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**Binary (Firmware) analysis** and reverse engineering; Security and privacy in **Mobile / IoT / Vehicle**; Operating system security; Trusted computing; Virtualization; Software-defined vehicle.

## Publication

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- **Haohuang Wen**, Zhiqiang Lin, and Yinqian Zhang. "FirmXRay: Detecting Bluetooth Link Layer Vulnerabilities from Bare-Metal Firmware". In Proceedings of the 27th ACM Conference on Computer and Communications Security (CCS 2020).
- **Haohuang Wen**, Qingchuan Zhao, Zhiqiang Lin, Dong Xuan, and Ness Shroff. "A Study of the Privacy of COVID-19 Contact Tracing Apps". In Proceedings of the International Conference on Security and Privacy in Communication Networks (*SecureComm* 2020).
- Qingchuan Zhao, **Haohuang Wen**, Zhiqiang Lin, Dong Xuan, and Ness Shroff. "On the Accuracy of Measured Proximity of Bluetooth-based Contact Tracing Apps". In Proceedings of the International Conference on Security and Privacy in Communication Networks (*SecureComm* 2020).
- **Haohuang Wen**, Qingchuan Zhao, Qi Alfred Chen and Zhiqiang Lin. "Automated Cross-Platform Reverse Engineering of CAN Bus Commands from Mobile Apps". In Proceedings of the Network and Distributed System Security Symposium (*NDSS* 2020).
- **Haohuang Wen**, Qi Alfred Chen, and Zhiqiang Lin. "Plug-N-Pwned: Comprehensive Vulnerability Analysis of OBD-II Dongles as A New Over-the-Air Attack Surface in Automotive IoT". In Proceedings of the 29th USENIX Security Symposium (*USENIX Security* 2020).
- Chaoshun Zuo, **Haohuang Wen**, Zhiqiang Lin and Yinqian Zhang. "Automatic Fingerprinting of Vulnerable BLE IoT Devices with Static UUIDs from Mobile Apps". In Proceedings of the 35th Annual Computer Security Applications Conference (CCS 2019).
- **Haohuang Wen**, Juanru Li, Yuanyuan Zhang, and Dawu Gu. "An Empirical Study of SDK Credential Misuse in iOS Apps". In Proceedings of 25th Asia-Pacific Software Engineering Conference (*APSEC* 2018).
- **Haohuang Wen**, Lei Yang, and Zhenyu Wang. "ParGen: A Parallel Method for Partitioning Data Stream Applications in Mobile Edge Computing". (*IEEE Access* 2017).

## Work Experience

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### **Tencent Technology Co., Ltd**

*Android Developer Intern*

- As a major developer of QQ Transfer, a near field transmission Android app.

**Guangzhou, China**

*July 2017 - Sep 2017*

### **The Ohio State University**

*Graduate Research Assistant*

**Columbus, US**

*Aug 2018 - Present*

## Awards and Honors

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- NDSS 2020 student travel grant
- CCS 2019 student travel grant
- First Class Scholarship (Top 10%), South China University of Technology (2015)

## Expertise and Skills

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**Programming Languages :** Python, Java, C++

**Skill Set:** App Development and Reverse Engineering (iOS & Android), Binary analysis (ARM)

**Tools/Framework :** Ghidra, IDA Pro, Jeb, Frida, Soot