Ming Gao

Ph.D. Candidate, School of Cyber Science and Technology, Zhejiang University

gaomingppm@zju.edu.cn

RESEARCH TOPICS

- Internet of Thing
- Mobile Computing and Sensing
- Privacy Protection

EDUCATION

Zhejiang University (ZJU)   Aug. 2021 – Now

    Ph.D., School of Cyber Science and Technology

    Supervisor: Prof. Jinsong Han and Prof. Feng Lin

Xi'an Jiaotong University (XJTU)   Aug. 2018 – Jul. 2021

    Master, Computer Science; Supervisor: Prof. Jinsong Han

Xi'an Jiaotong University (XJTU)   Aug. 2014 – Jul. 2018

    Bachelor, Electrical Engineering and Automation

EXPERIENCE

Ant Group   Nov. 2021 – Sep..2022

    Research Intern, Department of AIoT Technology

    Topic: Trustworthy Speech Forensics using Sound-ultrasound on Smartphones

SELECTED AWARDS AND HONORS

Best Paper Award Nomination	ACM SenSys	2021
National Scholarship	Xi'an Jiaotong University	2015

PUBLICATION

Conference Paper

- [C7]**Ming Gao**, Yike Chen, Yajie Liu, Jie Xiong, Jinsong Han, Kui Ren, "Cancelling Speech Signals for Speech Privacy Protection against Microphone Eavesdropping", The 29th Annual International Conference on Mobile Computing and Networking (MobiCom), 2023.

- [C6]**Ming Gao**, Fu Xiao, Weiran Liu, Wentao Guo, Yangtao Huang, Yajie Liu, Jinsong Han, "Expelliarmus: Command Cancellation Attacks on Smartphones using Electromagnetic Interference", IEEE International Conference on Computer Communications (INFOCOM), 2023.

- [C5]**Ming Gao**, Lingfeng Zhang, Xiang Zou, Jinsong Han, Feng Lin, Kui Ren, "KITE: Exploring the Practical Threat from Acoustic Transduction Attacks on Inertial Sensors", ACM Conference on Embedded Networked Sensor Systems (SenSys), 2022.

- [C4]**Ming Gao**, Yajie Liu, Yike Chen, Yimin Li, Zhongjie Ba, Xian Xu, Jinsong Han, "InertiEAR: Automatic and Device-independent IMU-based Eavesdropping on Smartphones", IEEE International Conference on Computer Communications (INFOCOM), 2022.

- [C3]Yike Chen, **Ming Gao** (Co-first), Yimin Li, Lingfeng Zhang, Li Lu, Feng Lin, Jinsong Han, Kui Ren, "Big Brother is Listening: An Evaluation Framework on Ultrasonic Microphone Jammers", IEEE International Conference on Computer Communications (INFOCOM), 2022.

- [C2]Tiantian Liu, **Ming Gao**, Feng Lin, Chao Wang, Zhongjie Ba, Jinsong Han, Wenyao Xu, Kui Ren, "Wavoice: A Noise-resistant Multi-modal Speech Recognition System Fusing mmWave and Audio Signals", The 19th ACM Conference on Embedded Networked Sensor Systems (SenSys), 2021. (**Best Paper Award Candidate**)

- [C1]**Ming Gao**, Feng Lin, Weiye Xu, Muertikepu Nuermaimaiti, Jinsong Han, Wenyao Xu, Kui Ren, "Deaf-Aid: mobile IoT communication exploiting stealthy speaker-to-gyroscope channel", The 26th Annual International Conference on Mobile Computing and Networking (MobiCom), 2020.

Journal Paper

- [J5]**Ming Gao**, Lingfeng Zhang, Leming Shen, Xiang Zou, Jinsong Han, Feng Lin, Kui Ren, "Exploring Practical Acoustic Transduction Attacks on Inertial Sensors in MDOF Systems", accepted by IEEE Transactions on Mobile Computing (TMC). (CCF A)

- [J4]**Ming Gao**, Yike Chen, Yimin Li, Lingfeng Zhang, Jianwei Liu, Li Lu, Feng Lin, Jinsong Han, Kui Ren, "A Resilience Evaluation Framework on Ultrasonic Microphone Jammers", accepted by IEEE Transactions on Mobile Computing (TMC). (CCF A)

- [J3]Feng Lin, **Ming Gao** (Co-first), Lingfeng Zhang, Yimin Li, Weiye Xu, Jinsong Han, Xian Xu, Wenyao Xu, Kui Ren, "Mobile Communication Among COTS IoT Devices via a Resonant Gyroscope with Ultrasound", accepted by IEEE/ACM Transactions on Network (TON). (CCF A)

- [J2]**Ming Gao**, Yajie Liu, Yike Chen, Yimin Li, Zhongjie Ba, Xian Xu, Jinsong Han, Kui Ren, "Device-independent Smartphone Eavesdropping Jointly using Accelerometer and Gyroscope", accepted by IEEE Transactions on Dependable and Secure Computing (TDSC). (CCF A)

- [J1]Yike Chen, **Ming Gao**, Yajie Liu, Jianwei Liu, Xian Xu, Le Cheng, Jinsong Han, "Implement of a secure selective ultrasonic microphone jammer", CCF Transactions on Pervasive Computing and Interaction, vol. 3, pp. 367–377, 2021.

- **TEACHING ASSISTANTS**

- Fall 2021   Computer Network

- Spring 2019   Foundation of Wireless and Internet of Things Security