

GUANGJING WANG

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EDUCATION

- Michigan State University 2020 - 2024
PhD in Computer Science, *Advisor:* Dr. Qiben Yan
Research areas: IoT Data Management, Mobile Sensing, Security and Privacy
MSU Engineering Graduate Leadership Fellow
- University of Science and Technology of China 2017 - 2020
Master in Computer Science, *Advisor:* Dr. Xiang-Yang Li and Dr. Lan Zhang
Outstanding Graduate Student Award
- Southwest University 2013 - 2017
Bachelor in Computer Science and Technology, *Advisor:* Dr. Li Li
Dean's Honored Graduate Student Award

PUBLICATIONS

Journal Papers

1. Wang, G., Ivanov, N., Chen, B., Wang, Q., Nguyen, T. and Yan, Q. *Graph Learning for Interactive Threat Detection in Heterogeneous Smart Home Rule Data*. Proceedings of the ACM on Management of Data. (Oral Presentation at **ACM SIGMOD 2023**) 2023
2. Wang, J., Wang, G., Zhang, X., Liu, L., Zeng, H., Xiao, L., Cao, Z., Gu, L. and Li, T. *PATCH: A Plug-in Framework of Non-blocking Inference for Distributed Multimodal System*. Proceedings of the ACM on IMWUT. (Oral Presentation at **ACM UbiComp 2023**) 2023

Conference Papers

3. Wang, G., Guo, H., Li, A., Liu, X. and Yan, Q. *Federated IoT Interaction Vulnerability Analysis*. In 2023 IEEE 39th International Conference on Data Engineering (**IEEE ICDE 2023**). 2023
4. Wang, G., Yan, Q., Patrarungrong, S., Wang, J. and Zeng, H. *FacER: Contrastive Attention-based Expression Recognition via Smartphone Earpiece Speaker*. In 2023 IEEE Conference on Computer Communications (**IEEE INFOCOM 2023**). 2023
5. Guo, H., Wang, G., Wang, Y., Chen, B., Yan, Q. and Xiao, L. *PhantomSound: Black-Box, Query-Efficient Audio Adversarial Attack via Split-Second Phoneme Injection*. In 2023 ACM 26th International Symposium on Research in Attacks, Intrusions and Defenses (ACM RAID 2023). 2023
6. Chen, B., Wang, G., Guo, H., Wang, Y. and Yan, Q. *Understanding Multi-Turn Toxic Behaviors in Open-Domain Chatbots*. In 2023 ACM 26th International Symposium on Research in Attacks, Intrusions and Defenses (ACM RAID 2023). 2023
7. Chen, B., Ivanov, N., Wang, G. and Yan, Q.,. *Balancing Communication Dynamics and Client Manipulation for Federated Learning*. In 2023 IEEE 20th International Conference on Sensing, Communication, and Networking (IEEE SECON 2023). 2023
8. Wang, Y., Guo, H., Wang, G., Chen, B. and Yan, Q. *VSMask: Defending Against Voice Synthesis Attack via Real-Time Predictive Perturbation*. In 2023 ACM 16th Conference on Security and Privacy in Wireless and Mobile Networks (ACM WiSec 2023). 2023
9. Han, F., Zhang, L., You, X., Wang, G. and Li, X.Y. *SHAD: Privacy-Friendly Shared Activity Detection and Data Sharing*. In 2019 IEEE 16th International Conference on Mobile Ad Hoc and Sensor Systems (IEEE MASS 2019). 2019
10. Wang, G., Zhang, L., Yang, Z. and Li, X.Y. *Socialite: Social Activity Mining and Friend Auto-labeling*. In 2018 IEEE 37th International Performance Computing and Communications Conference (IEEE IPCCC 2018). 2018

Preprints and Posters

11. Zhou, C., Li, Q., Li, C., Yu, J., Liu, Y., Wang, G., Zhang, K., Ji, C., Yan, Q., He, L. and Peng, H. A Comprehensive Survey on Pretrained Foundation Models: A History from BERT to ChatGPT. arXiv preprint arXiv:2302.09419. 2023
12. Wang, G., Yan, Q. *Federated Graph Learning for Detecting and Analyzing Interaction Vulnerabilities*. The MSU Engineering Graduate Research Symposium (MSU EGRS 2023 poster) 2023
13. Wang, G., Yan, Q. *Federated Threat Detection for Smart Home IoT Rules*. ACM SIGKDD Workshop on Federated Learning for Distributed Data Mining (FL4DataMining 2023 poster) 2023

TEACHING ASSISTANT

CSE 325 Computer Systems <i>Michigan State University</i>	Spring 2022
CSE 325 Computer Systems <i>Michigan State University</i>	Fall 2021
CSE 471 Media Processing and Multimedia <i>Michigan State University</i>	Spring 2021

FELLOWSHIPS AND HONORS

The ACM SIGMOD/PODS Conference on Management of Data Travel Award <i>Via University of Chicago</i>	2023
The IEEE International Conference on Data Engineering (ICDE) Travel Award <i>Via University of California, Irvine</i>	2023
$\Phi K \Phi$ Membership (Only Top 10% of the Graduate Students are Invited) <i>Michigan State University Chapter</i>	2023
MSU Engineering Leadership Development Fellowship <i>The College of Engineering of MSU</i>	2022
The Certified CyberAmbassadors for Communication-Teamwork-Leadership <i>NSF Funding 1730137, hosted by Michigan State University</i>	2022
MSU Cloud Computing Fellowship <i>Institute for Cyber-Enabled Research</i>	2021
Outstanding Graduate Student Fellowship <i>University of Science and Technology of China</i>	2020

RESEARCH SERVICES

Invited Reviewer for SIAM SDM 2024, IEEE ICASSP 2024, IEEE TIFS Journal
Invited Reviewer for ACM SIGKDD 2023, ACM SIGMOD 2023 Reproducibility
Invited Reviewer for KDD 2023 Workshop FL4Data-Mining and AAAI 2023 Workshop DCAA
External Reviewer for IEEE INFOCOM 2022-2024, ACM SenSys 2023, ACM TIST, IEEE TDSC

ACADEMIC AND STUDENT SERVICES

The Vice President of the IEEE MSU Student Branch, MSU-IEEE	2023
The Advisory Committee Member in the CSE Department, MSU	2023
The MSU Engineering Graduate Leadership Fellow, MSU	2022

The Co-founder and Vice President of Spartan State Security Team, MSU 2021
The President of Graduate Student Union in School of Computer Science, USTC 2018

MEDIA COVERAGE OF RESEARCH

News Article: *Addressing Security Vulnerabilities in Smart Homes*
The Email Letter from the Institute for Cyber-Enabled Research to MSU. Sept. 2023.
<https://icer.msu.edu/about/announcements/addressing-security-vulnerabilities-smart-homes>

MENTORING EXPERIENCE

Shane Patrarungrong, Undergraduate Researcher, MSU Summer 2022
The 12th Mid-Michigan Symposium for Undergraduate Research Experiences
Project: Facial Expression Recognition via Smartphone Earpiece Speaker. IEEE INFOCOM 2023