

Chuxiong Wu

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RESEARCH INTERESTS

I am broadly interested in **Systems Security**, with a focus on building secure and usable solutions for cyber-physical systems (CPS) and protecting artificial intelligence (AI) systems.





- **CPS Security:** Authentication and pairing, smart environments, Internet of Things (IoT), and mobile payment security.
- **AI Security:** Adversarial attacks and defenses, watermarking and content attribution, and data privacy and security.

EDUCATION


George Mason University, Fairfax, USA <i>Ph.D., in Computer Science</i> Advisor: Dr. Qiang Zeng	2022.08 – 2025.05 (Expected)
University of South Carolina, Columbia, USA <i>M.S., in Computer Science</i> Advisor: Dr. Qiang Zeng	2019.08 – 2022.08
China Academy of Electronic and Information Technology, Nanjing, China <i>M.S., in Communication and Information System</i>	2016.08 – 2019.08
Beihang University, Beijing, China <i>B.E., in Electronic Information Engineering</i>	2011.08 – 2015.07

PUBLICATIONS

Conference Papers


1. **[USENIX Security' 2024]**
Chuxiong Wu, and Qiang Zeng. "Do You See How I Pose? Using Poses as an Implicit Authentication Factor for QR Code Payment." *The 33rd USENIX Security Symposium, pp. 4571-4588, 2024.* » PDF 
2. **[USENIX Security' 2023]**
Junzhe Wang, Matthew Sharp, Chuxiong Wu, Qiang Zeng, and Lannan Luo. "Can a Deep Learning Model for One Architecture Be Used for Others? Retargeted-Architecture Binary Code Analysis." *The 32nd USENIX Security Symposium, pp. 7339-7356, 2023.* » PDF 
3. **[IMWUT/UbiComp' 2022]**
Chuxiong Wu*, Xiaopeng Li*, Fei Zuo, Lannan Luo, Xiaojiang Du, Jia Di, and Qiang Zeng. "Use It—No Need to Shake It!" Accurate Implicit Authentication for Everyday Objects with Smart Sensing." *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies, pp.1-25, 2022. (* Co-first Authors)* » PDF 
4. **[MobiCom' 2022]**
Jonathan Sharp, Chuxiong Wu, and Qiang Zeng. "Authentication for drone delivery through a novel way of using face biometrics." *Proceedings of the 28th Annual International Conference on Mobile Computing and Networking, pp. 609-622, 2022.* » PDF 

5. [MobiSys' 2022]

Chuxiong Wu, Xiaopeng Li, Lannan Luo, and Qiang Zeng. "G2Auth: Secure Mutual Authentication for Drone Delivery Without Special User-Side Hardware." *Proceedings of the 20th ACM International Conference on Mobile Systems, Applications, and Services*, pp. 84-98, 2022. » PDF 

Journal Paper

1. [TMC' 2024]

Chuxiong Wu, and Qiang Zeng. "Turning Noises to Fingerprint-Free "Credentials": Secure and Usable Authentication for Drone Delivery." *IEEE Transactions on Mobile Computing*, pp. 1-14, 2024. » PDF 

HONORS AND AWARDS

- Student Travel Grant, The 20th ACM International Conference on Mobile Systems, Applications, and Services (**MobiSys**), 2022
- Student Attendee Stipend, The 16th ACM ASIA Conference on Computer and Communications Security (**ASIACCS**), 2021
- Merit Scholarship, Beihang University, 2013

TEACHING EXPERIENCE

Graduate Teaching Assistant | *George Mason University* 2023.01 – 2023.05

- CS471: Operating Systems

Graduate Staff Assistant | *University of South Carolina* 2021.07 – 2021.07

- South Carolina Governor's School for Science & Mathematics (GSSM) Summer Camp.

Graduate Instructional Assistant | *University of South Carolina* 2019.08 – 2019.12

- CSCE145: Algorithmic Design I

Mentorship | *George Mason University*

- Yan Chen (Undergraduate student) 2023.05 – 2023.08

TALKS & PRESENTATIONS

Do You See How I Pose? Using Poses as an Implicit Authentication Factor for QR Code Payment
USENIX Security, Philadelphia, USA 2024

Smart Sensing Enabled Bilateral Authentication for IoT Devices
University of Wisconsin–Eau Claire, Online 2023

G2Auth: Secure Mutual Authentication for Drone Delivery Without Special User-Side Hardware
ACM MobiSys, Portland, USA 2022

"Use It–No Need to Shake It!" Accurate Implicit Authentication for Everyday Objects with Smart Sensing
ACM UbiComp, Online 2022

SERVICES

Conference Reviewer

- International Conference on Learning Representations (ICLR) 2025
- Conference on Neural Information Processing Systems (NeurIPS) 2024
- IEEE/IFIP International Conference on Dependable Systems and Networks (DSN) 2024
- IEEE International Symposium on Mixed and Augmented Reality (ISMAR) 2024
- International Conference on Internet of Things and Intelligent Information Processing 2024
- The Undergraduate Consortium at KDD (KDD-UC) 2023
- IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS) 2021

Journal Reviewer

- IEEE Transactions on Information Forensics and Security (TIFS) 2024
- IEEE Transactions on Cognitive Communications and Networking (TCCN) 2024
- IEEE Transactions on Machine Learning in Communications and Networking (TMLCN) 2024
- ACM Digital Threats: Research and Practice (DTRP) 2024
- Computers and Security 2024
- Big Data Research 2024
- IEEE Transactions on Mobile Computing (TMC) 2023
- ACM Transactions on Internet of Things (TIOT) 2023
- Journal of Computer Security (JCS) 2023
- Transactions on Emerging Telecommunications Technologies (ETT) 2023
- Ad Hoc Networks 2023

Artifact Evaluation Committee Member

- ACM Conference on Computer and Communications Security (CCS) 2024

Volunteer

- Information Security Conference (ISC) 2024