Qiuye He (She/Her/Hers)

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Education

Ph.D. in Computer Science *The University of Oklahoma, Norman, OK, USA*

M.E. in Electrical and Computer Engineering Xidian University, Xi'an, Shaanxi, China

B.E. in Electrical and Computer Engineering Yanshan University, Qinhuangdao, Hebei, China

Research Interests

- Mobile and IoT Security
- Mobile Sensing and Computing
- Smart Healthcare

Publications

Published a total of 8 research papers in peer-reviewed conferences and journals, including top-tier conferences such as **ACM CCS 2023**, **ACM CCS 2022**, **MobiSys 2021**, and tier-2 conference **RAID 2023**.

- 1 Qiuye He, Edwin Yang, Song Fang, "A Survey on Human Profile Information Inference via Wireless Signals", in IEEE Communications Surveys and Tutorials (IEEE COMST), (pp. 1-34), March 2024.
- 2 Yan He*, Qiuye He*, Song Fang, Yao Liu "When Free Tier Becomes Free to Enter: A Non-Intrusive Way to Identify Security Cameras with no Cloud Subscription", in Proceedings of the 30th ACM Conference on Computer and Communications Security (ACM CCS 2023), Copenhagen, Denmark, November 2023.
 * The first two authors contributed equally to this paper. (Acceptance Rate: 19.9% = 158/795)
- 3 Yan He, **Qiuye He**, Song Fang, Yao Liu, "Precise Wireless Camera Localization Leveraging Traffic-aided Spatial Analysis", in IEEE Transactions on Mobile Computing (IEEE TMC), (pp. 1-13), November 2023.
- 4 Qiuye He, Song Fang "Phantom-CSI Attacks against Wireless Liveness Detection", in Proceedings of the 26th International Symposium on Research in Attacks, Intrusions and Defenses (RAID 2023), Hong Kong, Hong Kong, October 2023. (Acceptance Rate: 23.5% = 50/213)
- 5 Qiuye He, Edwin Yang, Song Fang, Shangqing Zhao "HoneyBreath: An Ambush Tactic Against Wireless Breath Monitoring", in Proceedings of the 19th EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (EAI MobiQuitous 2022), (pp. 203-226), Pittsburgh, United States, November 2022. [Best Paper Award]
- 6 Edwin Yang, Qiuye He, Song Fang, "WINK: Wireless Inference of Numerical Keystrokes via Zero-Training Spatiotemporal Analysis", in Proceedings of the 29th ACM Conference on Computer and Communications Security (ACM CCS 2022), (pp. 3033-3047), Los Angeles, United States, November 2022. (Acceptance Rate: 17.9% = 58/324) [Artifacts Badge]

Aug. 2019 - May. 2024 Advisor: Dr. Song Fang Sept. 2016 - Jul. 2019

Sept. 2012 - Jul. 2016

- 7 Qiuye He, Song Fang, Tao Wang, Yao Liu, Shangqing Zhao, Zhuo Lu, "Proactive Anti-Eavesdropping With Trap Deployment in Wireless Networks", in IEEE Transactions on Dependable and Secure Computing (IEEE TDSC), (pp. 637-649), January 2022.
- 8 Yan He, Qiuye He, Song Fang, Yao Liu, "MotionCompass: Pinpointing Wireless Camera Via Motion-activated Traffic", in Proceedings of the 19th Annual International Conference on Mobile Systems, Applications, and Services (ACM MobiSys 2021), (pp. 215-227), Virtual, WI, USA, June 2021. (Acceptance Rate: 21.7% = 36/166) [Artifacts Badge]

Manuscripts Under Review

1 Qiuye He, Edwin Yang, Song Fang, Shangqing Zhao, "*Revisiting Wireless Breath and Crowd Inference Attacks with Defensive Deception*", in IEEE/ACM Transactions on Networking (IEEE/ACM ToN).

Patent

 Song Fang, Yan He, Qiuye He, "Method and Apparatus for Determining Locations of Wireless Cameras", US Patent (provisional application), serial No.: 63/356,211. (Non-provisional application #: 18/341,567, filed in 2023)

Selected Honors & Awards

- CANSec Student Travel Grant, NSF, 2023.
- Best Paper Award, EAI MobiQuitous, 2022.
- CS Alumni Graduate Fellowship, The University of Oklahoma, 2022.
- CANSec Student Travel Grant, NSF, 2022.
- ACM CCS Student Travel Grant, NSF, 2022.
- GCoE PhD Recruitment Excellence Fellowship, The University of Oklahoma, 2019.
- Academic Excellent Scholarships (Top 10%), Xidian University, 2018.
- Academic Excellent Scholarships (Top 5%), Xidian University, 2016.
- Recommended to the Graduate School with Entrance Exam Waiver (Top 10%), Yanshan University, 2016.
- Academic Excellent Scholarships (Top 10%), Yanshan University, 2014.

Talks

- 1 *Phantom-CSI Attacks against Wireless Liveness Detection*, in the 16th The Central Area Networking and Security Workshop (CANSec), University of Kansas, Lawrence, KS, October, 2023.
- 2 HoneyBreath: An Ambush Tactic Against Wireless Breath Monitoring, in 19th EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (EAI MobiQuitous), Virtual, November, 2022.
- 3 HoneyBreath: An Ambush Tactic Against Wireless Breath Monitoring, in the 15th The Central Area Networking and Security Workshop (CANSec), Wichita State University, Wichita, KS, October, 2022.

Teaching

- Teaching Assistant, CS-4/5173 Computer Security, OU, Fall 2023.
- Teaching Assistant, CS-5593 Data Mining, OU, Fall 2021.
- Teaching Assistant, CS/DSA-4413 Algorithm Analysis, OU, Fall 2019/2020, Spring 2021/2022.

Media Coverage

Nov. 2022 Study Aims to Improve Privacy From Digitally Enabled Hidden Devices. OU News. Link: https://ou.edu/research-norman/news-events/2022/ university-of-oklahoma-study-aims-to-improve-privacy-from-digitally-enabled-hidden-devices

Nov. 2022 OU studying privacy of listening smart devices. FOX News. Link: https://www.fox23.com/news/ou-studying-privacy-listening-smart-devices/EIKZ4W5CSRBI3IRUEXGZVXDHMI/

Nov. 2022 Researcher at OU developing app to detect hidden cameras. KOCO 5 News. Link: https://www.koco.com/article/oklahoma-research-app-detect-hidden-cameras/41959062

Professional Service

Reviewer for Conferences

- IEEE International Conference on Computer Communications (INFOCOM) 2023
- IEEE Conference on Communications and Network Security (CNS) 2022
- IEEE International Conference on Computer Communications and Networks (ICCCN) 2023
- IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS) 2022

Reviewer for Journals

- IEEE Transactions on Dependable and Secure Computing (TDSC)
- IEEE Transactions on Mobile Computing (TMC)
- IEEE Transactions on Information Forensics & Security (TIFS)
- IEEE/ACM Transactions on Networking (ToN)
- IEEE Transactions on Wireless Communications (TWC)
- Information Systems Journal (ISJ)

Volunteering

• Volunteer, ACM CCS, 2022