

ZI WANG

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EDUCATION AND EMPLOYMENT

Augusta University <i>School of Computer and Cyber Sciences</i> Assistant Professor	2022 - Present
Florida State University, Ph.D. <i>Computer Science</i> Research Areas: Cyber Security, Mobile Sensing Advisor: Prof. Jie Yang	2016 - 2022
Beijing Jiaotong University, M.S. <i>Information System of Traffic Security, Data Mining</i> Advisor: Prof. Yanhui Wang	2011 – 2014
Beijing Jiaotong University, B.E. <i>Information System and database of eCommerce</i>	2006 – 2010

RESEARCH EXPERIENCE

Augusta University Assistant Professor	2022 – Present
— Towards Earables Sensing in Enhancing Human-centered Healthcare Applications — Analysis of EEG and fMRI Data for Enhanced Patient Health Status and Activity Recognition — Enhancing Security, Interaction, and Healthcare through Head-Worn Wearable	
Pervasive Computing and Cybersecurity Lab, Florida State University, Tallahassee, FL Research Assistant	2016 – 2022
— Ear Wearables Study including Acoustic Toothprint and Ear Canal Deformation. — Multi-user Tracking and Activity Recognition.	
Beijing Jiaotong University, Beijing, China Research Assistant	2010 – 2014

PUBLICATIONS

- Zi Wang**, Yilin Wang, Jie Yang, Paper in major revision. *Proceedings of the ACM on Interactive, Mobile, Wearable, and Ubiquitous Computing (UbiComp 2024)*, [top-tier csrankings.org conference](#).
- Yilin Wang, Zi Wang** (Co-first-author), Jie Yang, Paper under review. *Proceedings of the ACM on Interactive, Mobile, Wearable, and Ubiquitous Computing (UbiComp 2024)*, [top-tier csrankings.org conference](#).
- Zi Wang**, Yili Ren, Yingying Chen, Jie Yang, "ToothSonic: Eearable Authentication via Acoustic Toothprint" *Proceedings of the ACM on Interactive, Mobile, Wearable, and Ubiquitous Computing (UbiComp 2022)*, [top-tier csrankings.org conference](#).
- Zi Wang**, Sheng Tan, Linghan Zhang, Yili Ren, Zhi Wang, and Jie Yang, "EarDynamic: An Ear Canal Deformation Based Continuous User Authentication Using In-Ear Wearables", *Proceedings of the ACM on Interactive, Mobile, Wearable, and Ubiquitous Computing (UbiComp 2021)*, (Acceptance Rate 20%) [top-tier csrankings.org conference](#).
- Zi Wang**, Linghan Zhang, Sheng Tan, Jie Yang, "ObstacleWatch: Acoustic-based Obstacle Collision Detection for Pedestrian Using Smartphone", *Proceedings of the ACM on Interactive, Mobile, Wearable, and Ubiquitous Computing (UbiComp 2019)*, (Acceptance Rate 20%), [top-tier csrankings.org conference](#).
- Yili Ren, **Zi Wang**, Yichao Wang, Sheng Tan, Yingying Chen, Jie Yang. "GoPose: 3D Human Pose Estimation Using WiFi", *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (UbiComp 2022)*, September 2022. [top-tier csrankings.org conference](#).

7. Yili Ren, **Zi Wang**, Sheng Tan, Yingying Chen, Jie Yang. “Winect: 3D Human Pose Tracking for Free-form Activity Using Commodity WiFi”, *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (UbiComp 2022)*, September 2022. [top-tier csrankings.org conference](#).
8. Linghan Zhang, Sheng Tan, **Zi Wang**, Yili Ren, Zhi Wang, Jie Yang, “VibLive: A Continuous Liveness Detection for Secure Voice User Interface in IoT Environment”, *36th Annual Computer Security Applications Conference (ACSAC 2020)*, December 2020. (Acceptance Rate: 23.41%)
9. Yili Ren, Sheng Tan, Linghan Zhang, **Zi Wang**, Zhi Wang, Jie Yang. “Liquid Level Sensing Using Commodity WiFi in a Smart Home Environment”, *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (UbiComp 2020)*, September 2020. [top-tier csrankings.org conference](#).
10. Sheng Tan, Linghan Zhang, **Zi Wang**, Jie Yang, “MultiTrack: Multi-User Tracking and Activity Recognition Using Commodity WiFi”, *ACM Conference on Human Factors in Computing Systems (CHI 2019)*, Glasgow, 2019. (Acceptance Rate: 23.8%) [top-tier csrankings.org conference](#).

POSTER

1. **Zi Wang**, Yili Ren, Yingying Chen, Jie Yang, “Fingerprint-Face Friction Based Earable Authentication”, *ACM Conference on Computer and Communications Security (CCS 2022)* poster, Virtual, 2022.
2. **Zi Wang**, Yili Ren, Yingying Chen, Jie Yang, “Earable Authentication via Acoustic Toothprint”, *ACM Conference on Computer and Communications Security (CCS 2021)* poster, Virtual, 2021.
3. **Zi Wang**, Yili Ren, Yingying Chen, Jie Yang, “An Ear Canal Deformation Based Continuous User Authentication Using Earables” *The 27th Annual International Conference on Mobile Computing and Networking (Mobicom 2021)* poster, Virtual, 2021.
4. **Zi Wang**, Yili Ren, Yingying Chen, Jie Yang, “Excerpt of ToothSonic: Earable Authentication via Acoustic Toothprint”, *Adjunct Proceedings of the 2022 ACM International Joint Conference on Pervasive and Ubiquitous Computing and the 2022 ACM International Symposium on Wearable Computers (UbiComp/ISWC’22Adjunct)* poster, Virtual, 2022.
5. Y. Ren, **Z. Wang**, Y. Wang, S. Tan, Y. Chen, J. Yang, “Tracking Free-form Activity Using WiFi Signals” *The 27th Annual International Conference on Mobile Computing and Networking (Mobicom 2021)* poster, Virtual, 2021.
6. Y. Ren, **Z. Wang**, Y. Wang, S. Tan, Y. Chen, J. Yang “3D Human Pose Estimation Using WiFi Signals” *The 19th ACM Conference on Embedded Networked Sensor Systems (SenSys 2021)* poster, Virtual, 2021.

MEDIAN COVERAGE

Ear Wearable User Authentication via Acoustic Toothprint: [Unite.Ai](#), [Gigazine](#), [ZME Science](#), [Biometric](#), [Intertechnews](#), [Livedoor News](#), etc.

Human Pose Estimation: [Tech Xplore](#), [The hack posts](#), [News8plus](#), [Lifeboat](#)

TEACHING AND MENTORING EXPERIENCE

AIST 2220 Intro to Web Development	Fall 2023
<i>Lecturer</i>	
CYBR 2600 Introduction to Networking and Cyber Security	Spring 2023
<i>Lecturer</i>	
COP 4020 Programming Language	Spring 2018, 2019, 2020, Fall 2020
<i>Teaching Assistant & Guest Lecture</i>	
CDA 3100 Computer Organization	Fall 2018, 2019
<i>Teaching Assistant & Guest Lecture</i>	
CIS 4403, CIS 4360 - Introduction to Computer Security	Fall 2017, 2021
<i>Teaching Assistant & Guest Lecture</i>	
CGS 2060 Computer Fluency	Summer 2018
<i>Teaching Assistant</i>	
Undergraduate Mentor	2012-2014

PROFESSIONAL SERVICES

CANS 2023 Organizing Committee Co-chair

Reviewer for conferences, Reviewer of Ubicomp/IMWUT 2024, CHI 2023, MASS 2023, Interact 2023, helped in reviewing paper of InfoCom 2022/2021, ASIACCS 2022, ACSAC 2021, CNS 2021, ESORICS2021, DCOSS 2021, Wisec2021, WASA2021, IWQoS 2021, ICCCN 2021, IoT 2021/2020/2019, MSN 2019.

Reviewer for journals, Reviewer of IEEE Internet of Things Journal, Sensors, Electronics, Healthcare, JCDE, helped in reviewing paper of ACM Transactions on Internet of Things, IEEE Transaction on Mobile Computing, PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies, IEEE Transaction on Cybernetics, IEEE Transaction on Big Data