

Kaiyi Guo

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🌐 Mywebset

Research Interests

My research interests focus on **human-computer interaction**, **smart health**, **wireless sensing**. By exploring diverse sensing modalities, hardware form, I aspire to transform complex interactive techniques, once restricted to laboratory settings, into simpler, more universally applicable solutions in real-world scenarios.

Education & Experience

Shanghai Jiao Tong University

MS in Computer Science and Technology

Sept 2023 – Mar 2026

(Expected)

- GPA: 3.5/4.0
- *Advisor*: Prof. Dong Wang and Prof. Qian Zhang

University of Michigan, Ann Arbor

Visting scholar in Electrical and Computer Engineering

Sept 2025 – Jan 2026

- *Advisor*: Prof. Junyi Zhu
- Do the project based Electrical Impedance Tomography to monitor special patient groups

Zhengzhou University

BS in Software Engineering

Sept 2019 – Jun 2023

- GPA: 3.8/4.0 (rank: 1/58)
- **Coursework**: Computer Architecture, Computer Network, Operate System

Publications

- J2.** Ahsan Jamal Akbar, **Kaiyi Guo**, Qian Zhang, Dong Wang, **EchoLip: Pushing the Limit of Acoustic-Based Silent Speech Interface on Mobile Devices**, In Proceedings of IEEE Internet of Things Journal (IEEE IOTJ).
- C4.** **Kaiyi Guo***, Tianyu Wu*, Yang Gao, Qian Zhang, Dong Wang, **EchoTouch: Low-power Face-touching Behavior Recognition Using Active Acoustic Sensing on Glasses**, In Proceedings of ACM Interact. Mob. Wearable Ubiquitous Technol (IMWUT)/Ubicomp'25.
- J1.** **Kaiyi Guo**, Qian Zhang, Dong Wang, **EchoExpress: Facial Expression Recognition in the Wild via Acoustic Sensing on Smart Glasses**, In Proceedings of IEEE Transactions on Mobile Computing (IEEE TMC).
- C3.** **Kaiyi Guo**, Qian Zhang, Dong Wang, **EchoBreath: Continuous Respiratory Behavior Recognition in the Wild via Acoustic Sensing on Smart Glasses**, In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI'25, **Honorable Mention**).
- C2.** Qian Zhang, **Kaiyi Guo**, Yifei yang, Dong Wang, **WearSE: Enabling Streaming Speech Enhancement on Eyewear Using Acoustic Sensing**, In Proceedings of ACM Interact. Mob. Wearable Ubiquitous Technol (IMWUT)/Ubicomp'25.
- C1.** Qian Zhang, Yubin Lan, **Kaiyi Guo**, Dong Wang, **Lipwatch: Enabling Silent Speech Recognition on Smartwatches using Acoustic Sensing**, In Proceedings of ACM Interact. Mob. Wearable Ubiquitous Technol (IMWUT)/Ubicomp'24.

* Equal Contribution

Awards

CHI 2025 Honorable Mention
ACM SIGCHI

Service

External Reviewer *2025 – present*
UbiComp'25, UIST'25, CHI'26, IEEE TMC

Teaching Experience

SE3303 Data Mining and Big Data Analytics *Spring'25*
Teaching Assistant at Shanghai Jiao Tong University, Instructor: Prof. Dong Wang and Prof. Qian Zhang

EI8702 Internet of Things (IoT) Technology *Fall'24*
Teaching Assistant at Shanghai Jiao Tong University, Instructor: Prof. Dong Wang and Prof. Qian Zhang

SE3303 Data Mining and Big Data Analytics *Spring'24*
Teaching Assistant at Shanghai Jiao Tong University, Instructor: Prof. Dong Wang and Prof. Qian Zhang

Skills

Languages: C++, C, Python, Java

Technologies: Tensorflow, Pytorch