

Di Duan

[✉ duandiacademic@gmail.com](mailto:duandiacademic@gmail.com) | [🌐 Personal Homepage](#) | [🔍 Google Scholar](#) | [🌐 LinkedIn](#)

Research Interests: Mobile Computing | Human-Computer Interaction | Deep Learning | Wearable Computing

Positions

- The Chinese University of Hong Kong (CUHK)** Aug. 2024 – Present
Postdoctoral Fellow (Full-Time → Honorary) in Information Engineering *Hong Kong*
Advisor: [Prof. Guoliang Xing](#).
- Centre for Perceptual and Interactive Intelligence (CPII)** Nov. 2024 – Present
Postdoctoral Fellow *Hong Kong*
Mentor: [Prof. Guoliang Xing](#).

Education

- City University of Hong Kong (CityU)** Aug. 2020 – Jul. 2024
Ph.D. in Computer Science *Hong Kong*
Supervised by [Dr. Weitao Xu](#), co-supervised by [Prof. Xiaohua Jia](#). I also work closely with [Dr. Tianxing Li](#) at MSU.
- Hong Kong University of Science and Technology (HKUST)** Aug. 2018 – Nov. 2019
M.Sc. in Electronic Engineering *Hong Kong*
- Harbin Engineering University (HEU)** Aug. 2014 – Aug. 2018
B.Eng. in Optoelectronic Information Science and Engineering *Harbin, Heilongjiang, China*

Publications

- [MobiSys'24] F²Key: Dynamically Converting Your Face into a Private Key Based on COTS Headphones for Reliable Voice Interaction**
[Di Duan](#), Zehua Sun, Tao Ni, Shuaicheng Li, Xiaohua Jia, Weitao Xu, Tianxing Li 2024
- [IMWUT/UbiComp'24] EarSE: Bringing Robust Speech Enhancement to COTS Headphones**
[Di Duan](#), Yongliang Chen, Weitao Xu, Tianxing Li 2024
- [PerCom'23] EMGSense: A Low-Effort Self-Supervised Domain Adaptation Framework for EMG Sensing**
[Di Duan](#), Huanqi Yang, Guohao Lan, Tianxing Li, Xiaohua Jia, Weitao Xu 🏆 Best Paper Award (1/159), 2023
- [MobileHCI'24] Medusa3D: The Watchful Eye Freezing Illegitimate Users in Virtual Reality Interactions**
Aochen Jiao*, [Di Duan](#)* (*co-first authors), Weitao Xu 🏆 Honorable Mention Award (3/141), 2024
- [MobiCom'24] RF-Egg: An RF Solution for Fine-Grained Multi-Target and Multi-Task Egg Incubation Sensing**
Zehua Sun, Tao Ni, Yongliang Chen, [Di Duan](#), Kai Liu, Weitao Xu 2024
- [TMC] Scenario-Adaptive Key Establishment Scheme for LoRa-enabled IoV Communications**
Huanqi Yang, [Di Duan](#), Hongbo Liu, Chengwen Luo, Yuezhong Wu, Wei Li, Albert Y. Zomaya, Linqi Song, Weitao Xu 2024
- [TOSN] mmSign: mmWave-based Few-Shot Online Handwritten Signature Verification**
Mingda Han, Huanqi Yang, Tao Ni, [Di Duan](#), Mengzhe Ruan, Yongliang Chen, Jia Zhang, Weitao Xu 2023
- [CSCAIoTSys] EarDA: Towards Accurate and Data-Efficient Earable Activity Sensing**
Shengzhe Lyu, Yongliang Chen, [Di Duan](#), Renqi Jia, Weitao Xu 2024
- [SenSys'24 Demo] Myotrainer: Muscle-Aware Motion Analysis and Feedback System for In-Home Resistance Training**
Yuting He, Xinyan Wang, Mu Yuan, [Di Duan](#), Doris S. F. Yu, Guoliang Xing, Hongkai Chen 🏆 Best Demo Runner-up Award, 2024

Selected Awards

🏆 Honorable Mention Award

MobileHCI'24, 2024

🏆 Mark Weiser Best Paper Award

PerCom'23, 2023

🏆 Best Demo Runner-up Award

SenSys'24, 2024

🌟 Elsevier Monetary Award

Elsevier, 2023

🌟 Studentship

CityU, 2020

Skills

Languages: Python, Matlab, Java

Technologies: Signal Processing (audio, EMG, IMU, gaze, mmWave), Deep Learning, Transfer Learning

Platform & Framework: Pytorch, Tensorflow, Arduino, Android

Tools: LaTeX, Draw.io, Powerpoint

Professional Services

Organizing Committee:

2024: Publicity Chair of BodySys Workshop (MobiSys)

Technical Program Committee:

2024: ICPADS, CHCHI (Chinese CHI)

Artifact Evaluation Committee:

2024: MobiSys

Conference Review:

2025: MobiCom, CHI, IMWUT (UbiComp)

2024: IPSN, IOTDI, ICDCS, DCOSS-IoT, SenSys

2023: IPSN

Journal Review:

2024: TMC (IEEE Trans), HEALTH (ACM Trans), Ad Hoc Networks

Reference

Guoliang Xing (Postdoc Advisor)

IEEE Fellow, HKIE Fellow

Professor

The Chinese University of Hong Kong

Email: glxing@ie.cuhk.edu.hk

Xiaohua Jia (Ph.D. Co-advisor)

IEEE Fellow, ACM Distinguished Member

Chair Professor, Head of Department of Computer Science

City University of Hong Kong

Email: csjia@cityu.edu.hk

Weitao Xu (Ph.D. Advisor)

IEEE Senior Member

Assistant Professor

City University of Hong Kong

Email: weitaoxu@cityu.edu.hk

Tianxing Li (Close Collaborator)

Assistant Professor

Michigan State University

Email: litianx2@msu.edu