

Di Duan

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

Positions

Chinese University of Hong Kong (CUHK)
Postdoctoral Fellow in Information Engineering
Work with Prof. Guoliang Xing.

Aug. 2024 – Present
Hong Kong

Education

City University of Hong Kong (CityU)

Ph.D. in Computer Science

Supervised by Dr. Weitao Xu, co-supervised by Prof. Xiaohua Jia. I also work closely with Dr. Tianxing Li at MSU.

Aug. 2020 – Jul. 2024
Hong Kong

Hong Kong University of Science and Technology (HKUST)

M.Sc. in Electronic Engineering

Aug. 2018 – Nov. 2019
Hong Kong

Harbin Engineering University (HEU)

B.Eng. in Optoelectronic Information Science and Engineering

Aug. 2014 – Aug. 2018
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

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

Awards

Elsevier Monetary Award

Elsevier, 2023

Mark Weiser Best Paper Award

PerCom'23, 2023

Postgraduate 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
Artifact Evaluation Committee:	
2024:	MobiSys
Conference Review:	
2024:	IPSN, IOTDI, ICDCS, DCOSS-IoT, SenSys
2023:	IPSN
Journal Review:	
2024:	Ad Hoc Networks, TMC

Reference

<u>Guoliang Xing</u> (Postdoc Advisor)	IEEE Fellow, HKIE Fellow
Professor	<i>Chinese University of Hong Kong</i>
Email: glxing@ie.cuhk.edu.hk	
<u>Xiaohua Jia</u> (Ph.D. Co-advisor)	IEEE Fellow, ACM Distinguished Member
Chair Professor, Head of Department of Computer Science	<i>City University of Hong Kong</i>
Email: csjia@cityu.edu.hk	
<u>Weitao Xu</u> (Ph.D. Advisor)	IEEE Senior Member
Assistant Professor	<i>City University of Hong Kong</i>
Email: weitaoxu@cityu.edu.hk	
<u>Tianxing Li</u> (Close Collaborator)	
Assistant Professor	<i>Michigan State University</i>
Email: litianx2@msu.edu	