

# Di Duan

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

## Education

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

## Publications

**[MobiSys'24] F<sup>2</sup>Key: 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

<b>Languages:</b>	Python, Matlab, Java
<b>Technologies:</b>	Signal Processing (audio, EMG, IMU, gaze, mmWave), Deep Learning, Transfer Learning
<b>Platform &amp; Framework:</b>	Pytorch, Tensorflow, Arduino, Android
<b>Tools:</b>	LaTeX, Draw.io, Powerpoint

## Professional Services

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### Organizing Committee:

2024: Publicity Chair of BodySys Workshop (MobiSys)

### Artifact Evaluation Committee:

2024: MobiSys

### Conference Review:

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

2023: IPSN

### Journal Review:

2024: Ad Hoc Networks, TMC

## Reference

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**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*

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**Tianxing Li** (Close Collaborator)

*Michigan State University*

**Assistant Professor**

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