

Xiaomin Ouyang

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Research Interest

Machine learning for smart health systems, Mobile sensing, Internet of things

Education

- 2019.08- **Ph.D. Student**, *Department of Information Engineering, The Chinese University of Hong Kong, Hong Kong SAR, China*
Present
Advisor: Guoliang Xing and Jianwei Huang
- 2015.09- **B.Eng., Communication & Information Engineering**, *Xiamen University*,
2019.06 Xiamen, China
School Ranking: 1/68, GPA: 91.45/100

Publication

- MobiCom'22 **Cosmo: Contrastive Fusion Learning with Small Data for Multimodal Human Activity Recognition**
Xiaomin Ouyang, Xian Shuai, Jiayu Zhou, Ivy Wang Shi, Zhiyuan Xie, Guoliang Xing, Jianwei Huang
The 28th Annual International Conference On Mobile Computing And Networking
- MobiCom'22 **HiToF: A ToF Camera System for Capturing High-Resolution Textures**
Demo Zhiyuan Xie, Xiaomin Ouyang, Li Pan, Wenrui Lu, Xiaoming Liu, Guoliang Xing
The 28th Annual International Conference On Mobile Computing And Networking
- TOSN **ClusterFL: A Clustering-based Federated Learning System for Human Activity Recognition**
Xiaomin Ouyang, Zhiyuan Xie, Jiayu Zhou, Guoliang Xing, Jianwei Huang
ACM Transactions on Sensor Networks
- SenSys'21 **FedDL: Federated Learning via Dynamic Layer Sharing for Human Activity Recognition**
Linlin Tu, Xiaomin Ouyang, Jiayu Zhou, Yuze He, Guoliang Xing
The 19th ACM Conference on Embedded Networked Sensor Systems
- SenSys'21 **UltraDepth: Exposing High-resolution Texture from Depth Cameras**
Zhiyuan Xie, Xiaomin Ouyang, Xiaoming Liu, Guoliang Xing
The 19th ACM Conference on Embedded Networked Sensor Systems
- MobiSys'21 **ClusterFL: A Similarity-Aware Federated Learning System for Human Activity Recognition**
Xiaomin Ouyang, Zhiyuan Xie, Jiayu Zhou, Jianwei Huang, Guoliang Xing
The 19th Annual International Conference on Mobile Systems, Applications, and Services

Work Experience

- Nov.2019- **Visiting Ph.D. student**, *Shenzhen Institute of Artificial Intelligence and Robotics for Society*, Center for Crowd Intelligence
Jan.2020
Worked on federated learning.
- Dec. 2018 - **Junior Research Assistant**, *The Chinese University of Hong Kong*, Department of
May. 2019 Information Engineering
Worked on baby sleep monitoring using RGB and depth cameras.

Teaching Experience

- 2019 Fall **IERG3310: Computer Networks**, *CUHK*
- 2020 Spring **IERG3310: Computer Networks**, *CUHK*
- 2020 Fall **IERG1810: Electronic Circuit Design Laboratory**, *CUHK*
- 2021 Spring **IERG3310: Computer Networks**, *CUHK*
- 2021 Fall **IERG1810: Electronic Circuit Design Laboratory**, *CUHK*
- 2022 Spring **IERG3310: Computer Networks**, *CUHK*

Honors and Awards

- Postgraduate Scholarship, CUHK (2019 - 2023)
- Outstanding Undergraduates, Xiamen University, Top 1% (2019)
- National Scholarship, Highest honor for undergraduates in China (2016, 2017, 2018)
- Outstanding Award, National Undergraduate Contest of IoT of China (2018)
- The First Prize, National Undergraduate Electronic Design Contest of China (2017)
- Outstanding Student Leader, Xiamen University (2017)

Professional Service

- Reviewer: IMWUT/UbiComp 2022, INFOCOM 2022, KDD 2021, IEEE Transactions on Mobile Computing, IEEE Internet of Things Journal