Xiaomin Ouyang

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Research Interest

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

Education

2019.08-Present   **Ph.D. Student**, *Department of Information Engineering*, The Chinese University of Hong Kong, Hong Kong SAR, China
Advisor: Guoliang Xing and Jianwei Huang

2015.09-2019.06   **B.Eng., Communication & Information Engineering**, *Xiamen University*, 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, Guoliang Xing, Jianwei Huang
The 28th Annual International Conference On Mobile Computing And Networking

MobiCom'22 Demo   **HiToF: A ToF Camera System for Capturing High-Resolution Textures**
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-Jan.2020	**Visiting Ph.D. student**, *Shenzhen Institute of Artificial Intelligence and Robotics for Society*, Center for Crowd Intelligence Worked on federated learning.
Dec. 2018 - May. 2019	**Junior Research Assistant**, *The Chinese University of Hong Kong*, Department of 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