Shiming Yu

Education

The Hong Kong Polytechnic University

Aug 2022 - Now

Ph.D. Candidate in Computer Science (Advisor: Prof. Yuanqing Zheng)

University of Electronic Science and Technology of China

Aug 2018 - Jul 2022

B.E. in Communication Engineering (GPA: 3.8/4.0)

Research Interest

My research interests include Low Power Wide Area Networks (LPWANs) and Wireless Networking.

Publications

First-author papers:

[C1] Are LoRa Logical Channels Really Orthogonal? Practically Orthogonalizing Massive Logical Channels

MobiSys 2025
Acceptance ratio: 18.03%

Shiming Yu, Ziyue Zhang, Xianjin Xia, Yuanqing Zheng, Jiliang Wang

The 23rd ACM International Conference on Mobile Systems, Applications, and Services

[C2] Revolutionizing LoRa Gateway with XGate: Scalable Concurrent Transmission across Massive Logical Channels

MobiCom 2024

Acceptance ratio: 20.85%

Shiming Yu, Xianjin Xia, Ningning Hou, Yuanqing Zheng, Tao Gu

The 30th Annual International Conference on Mobile Computing and Networking

[C3] FDLoRa: Tackling Downlink-Uplink Asymmetry with Full-duplex LoRa Gateways

SenSys 2024

Acceptance ratio: 18.53%

 $\underline{\operatorname{Shiming}\ \operatorname{Yu}},$ Xianjin Xia, Ziyue Zhang, Ningning Hou, Yuanqing Zheng

The 22nd ACM Conference on Embedded Networked Sensor Systems

Other papers:

[C4] From Interference Mitigation to Toleration: Pathway to Practical Spatial Reuse in LPWANs

MobiCom 2025

Acceptance ratio: 17.08%

Ruonan Li, Ziyue Zhang, Xianjin Xia, Ningning Hou, Wenchang Chai, Shiming Yu, Yuanqing Zheng, Tao Gu

The 31st Annual International Conference on Mobile Computing and Networking

[C5] MoLoRa: Intelligent Mobile Antenna System for Enhanced LoRa Reception in Urban Environments

SenSys 2025

Acceptance ratio: 18.78%

Ningning Hou, Yifeng Wang, Xianjin Xia, Shiming Yu, Yuanqing Zheng, Tao Gu The 23rd ACM Conference on Embedded Networked Sensor Systems

Professional Services

Program Committee Member

ACM MobiCom Artifact Evaluation Committee
 ACM MobiSys Artifact Evaluation Committee

2024-25

2024-25

Invited Reviewer

 ACM Transactions on Sensor Networks IEEE Transactions on Wireless Communications IEEE Internet of Things Journal Computer Networks 	2023,2025 2023 2024 2023		
		Awards	
		• Student Travel Grant, ACM MobiCom	2024
		o Best Oral Presentation Award, PolyU CRSC	2024
• Full Ph.D. Scholarship, PolyU	2024 $2022-Now$		
• Outstanding Student Scholarship (Top 15%)	2020		
 National Encouragement Scholarship 	2019		
• Outstanding Student Scholarship (Top 15%)	2019		