# 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

# $[{\rm C3}]$ FDLoRa: Tackling Downlink-Uplink Asymmetry with Full-duplex LoRa Gateways

SenSys 2024

Acceptance ratio: 18.53%

Shiming 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: 18.76%

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**

<ul> <li>ACM Transactions on Sensor Networks</li> <li>IEEE Transactions on Wireless Communications</li> <li>IEEE Internet of Things Journal</li> <li>Computer Networks</li> </ul>	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		
<ul> <li>National Encouragement Scholarship</li> </ul>	2019		
• Outstanding Student Scholarship (Top 15%)	2019		