Shiming Yu

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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	
[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	
[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	
[J1] FDLoRa: Scaling Downlink Concurrent Transmissions with Full-duplex LoRa Gateways	**TMC 2025**
Shiming Yu, Xianjin Xia, Ziyue Zhang, Ningning Hou, Yuanqing Zheng	
[J2] XGate: Scaling LoRa Communications to Massive Logical Channels	**ToN 2025**
Shiming Yu, Xianjin Xia, Ningning Hou, Yuanqing Zheng, Tao Gu	

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	
[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	

Professional Services

Program Committee Member

○ ACM MobiCom Artifact Evaluation Committee	2024-25
○ ACM MobiSys Artifact Evaluation Committee	2024-25

Invited Reviewer

- ○ ACM Transactions on Sensor Networks — 2023,2025
- ○ IEEE Transactions on Wireless Communications — 2023
- ○ IEEE Internet of Things Journal — 2024
- ○ Computer Networks — 2023

Awards

- ○ Winner (Rank 1), PolyU FCMS Three Minute Thesis (3MT) Competition — 2025
- ○ Student Travel Grant, ACM MobiCom — 2024
- ○ Best Oral Presentation Award, PolyU COMP Research Student Conference — 2024
- ○ Full Ph.D. Scholarship, PolyU — 2024
- ○ Outstanding Student Scholarship (Top 15%) — 2022-Now
- ○ National Encouragement Scholarship — 2020
- ○ Outstanding Student Scholarship (Top 15%) — 2019
    2019