

Tianxin Wang

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[Google Scholar](#)
[LinkedIn](#) [GitHub](#) [Website](#)

RESEARCH FOCUS My current research interests lie in AI for networking, mobile network optimization, and Open RAN.

EDUCATION **Shanghai Jiao Tong University (SJTU)** Shanghai, China
 Ph.D. in Information and Communication Engineering Sep 2020 - Sep 2025
 · *Advisor:* [Professor Xudong Wang](#), Wireless Networking and Artificial Intelligence Lab
 · *Dissertation:* Boost Throughput of Wireless Networks via AI-Assisted Algorithms at Different Architectural Levels [\[PDF\]](#)
 · *GPA:* 3.81/4.0; Zhiyuan Honors Doctorate Program (~1%); focus on AI for next-generation mobile networking and communications

Imperial College London London, U.K.
 Ph.D. Visiting Student Sep 2023 - Jan 2025
 · *Co-advisor:* [Professor Geoffrey Ye Li](#), Intelligent Transmission and Processing (ITP) Lab

Southeast University (SEU) Nanjing, China
 B.S. in Information Engineering Sep 2016 - Jun 2020
 · *Grade:* 91.3/100 (~5%)

Hong Kong Polytechnic University Hong Kong, China
 Exchange Student (Academic Term), Electronic Information Engineering Sep 2017 - Jan 2018
 · *GPA:* 4.0/4.0 (~1%)

EMPLOYMENT **School of Informatics, University of Edinburgh** Edinburgh, U.K.
 Networked Systems (NetSys) Group
 Postdoctoral Researcher Oct 2025 - Present
 · *Advisor:* [Professor Mahesh K. Marina](#). Ongoing projects: AI and RAN coexistence on a general-purpose compute platform under Open RAN context; network-side localization, integrated sensing and communication (ISAC) with Open RAN systems.

School of Informatics, University of Edinburgh Edinburgh, U.K.
 Networked Systems (NetSys) Group
 Research Assistant Feb 2025 - May 2025
 · *Advisor:* [Professor Mahesh K. Marina](#). Contributed to Campus5G, a campus-level private 5G Open RAN testbed.

Siemens Corporate Technology China (R&D)

Suzhou, China

[Department of Internet-of-Things](#)

Software Engineer

Jun 2019 - Aug 2019

Mentor: Mr. Ye Xu. Deployed virtual networking computing modules for Siemens remote medical treatment platform.

JOURNAL
PUBLICATIONS

Andrew E. Ferguson*, Ujjwal Pawar*, [Tianxin Wang](#), and Mahesh K. Marina, “**Campus5G: A Campus Scale Private 5G Open RAN Testbed.**” *SIGCOMM Computer Communication Review* 55, 3 (July 2025), 19–28. *Equal contribution. [\[PDF\]](#) [\[DOI\]](#)

[Tianxin Wang](#) and Xudong Wang, “**DeepRP: Bottleneck Theory Guided Relay Placement for 6G Mesh Backhaul Augmentation.**” *IEEE Transactions on Mobile Computing* 24, 3 (2025), 1744–1758. [\[PDF\]](#) [\[DOI\]](#)

[Tianxin Wang](#), Xudong Wang, and Yi-Bing Lin, “**SideSeeker: Contention-Based Distributed Relay Finding for Sidelink Mesh Networks.**” *IEEE Wireless Communications Letters* 13, 10 (2024), 2802–2806. [\[PDF\]](#) [\[DOI\]](#)

[Tianxin Wang](#), Suhong Chen, Yifei Zhu, Aimin Tang, and Xudong Wang, “**LinkSlice: Fine-Grained Network Slice Enforcement Based on Deep Reinforcement Learning.**” *IEEE Journal on Selected Areas in Communications* 40, 8 (2022), 2378–2394. [\[PDF\]](#) [\[DOI\]](#)

CONFERENCE
PUBLICATIONS

[Tianxin Wang](#), Yuanzhe Huang, and Xudong Wang, “**ChannelMAE: Self-Supervised Learning Assisted Online Adaptation of Neural Channel Estimators.**” In *IEEE Conference on Computer Communications (INFOCOM '26)*, 1–10. [\[PDF\]](#) [\[DOI\]](#)

[Tianxin Wang](#), Xudong Wang, and Geoffrey Ye Li, “**GraphRx: Graph-Based Collaborative Learning among Multiple Cells for Uplink Neural Receivers.**” In *IEEE Conference on Computer Communications (INFOCOM '25)*, 1–10. [\[PDF\]](#) [\[DOI\]](#)

Shuo Wang, [Tianxin Wang](#), and Xudong Wang, “**FedPDA: Collaborative Learning for Reducing Online-Adaptation Frequency of Neural Receivers.**” In *IEEE Conference on Computer Communications (INFOCOM '25)*, 1–10. [\[PDF\]](#) [\[DOI\]](#)

[Tianxin Wang](#), Shuo Wang, Xudong Wang, and Geoffrey Ye Li, “**Collaborative Learning for Less Online Retraining of Neural Receivers.**” In *IEEE International Workshop on Machine Learning for Signal Processing (MLSP '24)*, 1–6. [\[PDF\]](#) [\[DOI\]](#)

[Tianxin Wang](#) and Xudong Wang, “**Boosting Capacity for 6G Terahertz Mesh Networks Based on Bottleneck Structures.**” In *IEEE Global Communications Conference (GLOBECOM '23)*, 4589–4594. [\[PDF\]](#) [\[DOI\]](#)

POSTERS
/DEMOS

Leyang Xue*, Tianxin Wang*, and Mahesh K. Marina, “**On Making AI-and-RAN Efficient and Safe.**” *In MobiUK 2026 – Eighth UK Mobile, Wearable and Ubiquitous Systems Research Symposium (MobiUK ’26).*

*Co-primary authors.

[\[PDF\]](#)

Tianxin Wang and Mahesh K. Marina, “**Towards Sensing with NextG Open RAN.**” *In MobiUK 2026 – Eighth UK Mobile, Wearable and Ubiquitous Systems Research Symposium (MobiUK ’26).*

[\[PDF\]](#)

Mingjie Yang, Tianxin Wang, and Dongzhu Liu, “**Beyond Blind Zones: Physical Limits and Algorithmic Gaps in 5G NR Passive Sensing.**” *In MobiUK 2026 – Eighth UK Mobile, Wearable and Ubiquitous Systems Research Symposium (MobiUK ’26).*

[\[PDF\]](#)

Tianxin Wang, “**Integrated Sensing and Communication with Open RAN Infrastructure.**” *MobiSys Rising Stars Forum, co-located with the 24th Annual International Conference on Mobile Systems, Applications, and Services (MobiSys ’26), 2026.*

[\[PDF\]](#) [\[DOI\]](#)

Andrew Ferguson*, Ujjwal Pawar*, Tianxin Wang, and Mahesh Marina, “**Demo: A Campus Scale Private 5G Open RAN Testbed.**” *In ACM MobiCom ’25, ACM, 1248–1250.* *Equal contribution.

[\[PDF\]](#) [\[DOI\]](#)

Andrew Ferguson*, Ujjwal Pawar*, Tianxin Wang, and Mahesh Marina, “**On Deploying a Campus Scale Private 5G Open RAN Testbed.**” *In MobiUK 2025 – Seventh UK Mobile, Wearable and Ubiquitous Systems Research Symposium (MobiUK ’25).* *Equal contribution.

[\[PDF\]](#)

PATENTS

Xudong Wang, Tianxin Wang, Aimin Tang, and Z. Li, “**Method for Distributed Network Topology Reconfiguration Under Centralized Coordination.**” International Patent, WO/2024/197884, CN121014224, Pub. date Oct. 2024..

[\[Link\]](#)

PROFESSIONAL
SERVICE

**Organizing
Committee**

[ACM MobiCom ’26 Artifact Co-chair](#)
[ACM MobiSys ’26 N2Women Workshop Co-chair](#)
[MobiUK ’26 Publicity Chair](#) and [Session Chair](#)

TPC

[IEEE INFOCOM ’27 TPC Member](#)
[ACM MobiCom ’26 Open-AI RAN Workshop TPC Member](#)
[ACM MobiSys ’26 N2Women Workshop PC Co-chair](#)
[ACM SIGMETRICS ’26 Shadow PC Member](#)

Reviewer

IEEE INFOCOM ’24-27; IEEE ICDCS ’25; IEEE Transactions on Mobile Computing, IEEE Transactions on Vehicular Technology; Information & Communications Technology Express (ICT Express)

Sub-reviewer

IEEE ICC ’23; IEEE INFOCOM ’22-23

Other Service ACM MobiCom '26 TPC Meeting Local Co-host
 ACM MobiCom '25 Open-AI RAN Workshop Volunteer
 'Imperial Lates' AI Workshop Volunteer
 Imperial Women in AI and Networks Member

HONORS AND AWARDS	13th Heidelberg Laureate Forum (HLF) Young Researcher	2026
	Selected as one of 200 young researchers worldwide in mathematics and computer science	
	INFOCOM '26 Student Travel Grant	2026
	Selected Participant, MobiSys '26 Rising Star Forum	2026
	MobiUK '26 Best Presentation Runner Up	2026
	Awarded for "On Making AI-and-RAN Efficient and Safe"	
	ACM MobiCom 2025 Best Demo Award	2025
	Awarded for "A Campus Scale Private 5G Open RAN Testbed"	
	SJTU Development Scholarship (Outstanding Graduates)	2025
	Shanghai Jiao Tong University	Shanghai, China
SJTU Zhiyuan Honors Doctorate Scholarship (~\$87,000)	2020 - 2025	
Shanghai Jiao Tong University	Shanghai, China	
SJTU Graduate Student Excellence Scholarship	2024	
Shanghai Jiao Tong University	Shanghai, China	
SJTU Merit Student Award	2020 - 2022	
Shanghai Jiao Tong University	Shanghai, China	
SEU Merit Student Award	2018 - 2020	
Southeast University	Nanjing, China	

ACHIEVEMENTS	<i>First Prize</i> - Oral Presentation of 2023 SJTU Boxue Zhiyuan Doctoral Academic Forum (~1/70)	
	Shanghai Jiao Tong University, Shanghai, China	2023
	<i>Grand Prize</i> - National English Competition for College Students (highest award, ~1%)	
	Jiangsu Province, China	2019
	<i>First Prize</i> - SEU Mathematical Contest in Modeling (MCM)	
	Southeast University	2018

TEACHING AND SUPERVISION	Teaching Assistant	
	Tutorial sessions, office hours, and grade marking	
	· Probability and Random Processes, Hong Kong Polytechnic University	2018
	· Advanced Mathematics, Southeast University	2020
	· Computer Networks, Shanghai Jiao Tong University	2021
	Student Supervision	
	Regular meeting, research guidance, and paper writing	
	· PhD students: Yibo Ma (UoE), Molham Khoja (UoE), Haifeng Jia (SJTU)	
	· Master students: Jayashree K. Shivakumar (UoE), Yufeng Xia (UoE), Dheeraj Mahendiran (UoE)	
	· Undergrad students: Carrie Li (UoE), Yuanzhe Huang (SJTU)	
INVITED TALKS	<i>Learning to Receive: Adaptive and Collaborative Neural Receivers for Future Wireless Systems</i>	
	Tsinghua University	June 2026
	<i>Online Adaptation of Neural Channel Estimators</i>	
	University of Tokyo	May 2026
	<i>Navigate through your PhD journey</i>	
	Shanghai Jiao Tong University	July 2023
OTHER EXPERIENCES	State Key Laboratory of Millimeter Waves, School of Information Science and Engineering, SEU	Jan - Jun 2019
	Undergraduate Research Assistant (Advisor: Professor Chao Yu) Implemented state-of-the-art signal processing algorithms for a 5.8 GHz multi-antenna radar system for human movement detection.	