RESUME

Name:	YU Wenhan	**Gender:**	Male	**Nationality:**	Chinese
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EDUCATION

09/2017-06/2021 **Sichuan University**

- Major：Computer Science and Technology; GPA: *3.82/4.00*
- Degree: Bachelor of Computer Science

08/2021-Now (Year 3) **Nanyang Technological University**

- Department: Interdisciplinary Graduate Program
- Research direction: Reinforcement Learning over wireless communication

PUBLICATIONS

Accepted

◦ **Wenhan Yu**, Terence Jie Chua, Jun Zhao. Asynchronous Hybrid Reinforcement Learning for Latency and Reliability Optimization in the Metaverse over Wireless Communications.
—IEEE Journal on Selected Areas in Communications (**JSAC**), 2023

◦ **Wenhan Yu**, Terence Jie Chua, Jun Zhao. User-centric Heterogeneous-action Deep Reinforcement Learning for Virtual Reality in the Metaverse over Wireless Networks.
—IEEE Transactions on Wireless Communications (**TWC**), 2023

◦ **Wenhan Yu**, Jun Zhao. Optimization for 6G Wireless Communications with Heterogeneous VR and Non-VR 360-Degree Videos: A Differentiated Reinforcement Learning Approach.
—IEEE Transactions on Wireless Communications (**TWC**), Accepted, 2024

◦ **Wenhan Yu**, Liangxin Qian, Terence Jie Chua, Jun Zhao. "Counterfactual Reward Estimation for Credit Assignment in Multi-agent Deep Reinforcement Learning over Wireless Video Transmission."
— IEEE International Conference on Distributed Computing Systems (**ICDCS**), 2024. (Acceptance ratio: 121/552≈21.9%)

◦ **Wenhan Yu**, Terence Jie Chua, Jun Zhao. Virtual Reality in Metaverse over Wireless Networks with User-centered Deep Reinforcement Learning.
—IEEE International Conference on Communications (ICC), 2023.

◦ **Wenhan Yu**, Jun Zhao. Heterogeneous 360 Degree Videos in Metaverse: Differentiated Reinforcement Learning Approaches.
—IEEE GLOBECOM, 2023.

◦ **Wenhan Yu**, Terence Jie Chua, Jun Zhao. Multi-Agent Deep Reinforcement Learning for Digital Twin over 6G Wireless Communication in the Metaverse.
—IEEE INFOCOM Workshop on PerAI-6G: Pervasive Network Intelligence for 6G Networks, 2023.

◦ **Wenhan Yu**, Terence Jie Chua, Jun Zhao. Mobile Edge Computing and AI Enabled Web3 Metaverse over 6G Wireless Communications: A Deep Reinforcement Learning Approach.
—IEEE Vehicular Technology Conference (VTC), 2023.

◦ **Wenhan Yu**, Jun Zhao. Semantic communications, semantic edge computing, and semantic caching with applications to the Metaverse and 6G mobile networks.
—IEEE International Conference on Distributed Computing Systems (ICDCS), PhD symposium, 2023.

◦ **Wenhan Yu**, Jun Zhao. Quantum Multi-Agent Reinforcement Learning as an Emerging AI Technology: A Survey and Future Directions.
—IEEE International Conference on Computer and Applications (ICCA), 2023.

◦ Jun Zhao, Liangxin Qian, **Wenhan Yu**. Human-Centric Resource Allocation in the Metaverse over Wireless Communications.
—IEEE Journal on Selected Areas in Communications (**JSAC**), 2023

◦ Terence Jie Chua, **Wenhan Yu**, Jun Zhao. Mobile Edge Adversarial Detection for Digital Twinning to the Metaverse with Deep Reinforcement Learning.
—IEEE Transactions on Wireless Communications (**TWC**), 2023

◦ Terence Jie Chua, **Wenhan Yu**, and Jun Zhao. Resource allocation for mobile metaverse with the Internet of Vehicles over 6G wireless communications: A deep reinforcement learning approach.
—IEEE World Forum on the Internet of Things (WF-IoT), 2022.

◦ Terence Jie Chua, **Wenhan Yu**, and Jun Zhao. Detection of Uncertainty in Exceedance of Threshold (DUET): An Adversarial Patch Localizer.
—IEEE/ACM International Conference on Big Data Computing, Applications and Technologies (BDCAT) **(Best Paper Award)**, 2022.

◦ Terence Jie Chua, **Wenhan Yu**, Jun Zhao. Mobile Edge Adversarial Detection for Digital Twinning to the Metaverse with Deep Reinforcement Learning.
—IEEE International Conference on Communications (ICC), 2023.

Under Review

◦ Terence Jie Chua, **Wenhan Yu**, Jun Zhao. Play to Earn in the Metaverse with Mobile Edge Computing over Wireless Networks: A Deep Reinforcement Learning Approach.
—IEEE Transactions on Wireless Communications (TWC), Major Revision, 2023

◦ Peiyuan Si, **Wenhan Yu**, Jun Zhao, Kowk-Yan Lam. Hybrid Convex Optimization and Reinforcement Learning (HCORL).
—Submitted to IEEE Transactions on Communications (TCOM), 2023

Preprint

◦ Terence Jie Chua*, **Wenhan Yu***, Jun Zhao. FedPEAT: Convergence of 6G-enabled Federated Learning, Parameter-Efficient Fine Tuning, and Emulator Assisted Tuning for Foundation Models
—Plan to submit to Nature Scientific Reports, February, 2024. (* means equal contribution)

◦ Wenhan Yu, Terence Jie Chua, Jun Zhao. Orchestration of Emulator Assisted Mobile Edge Tuning for AI Foundation Models: A Multi-Agent Deep Reinforcement Learning Approach.
—arXiv preprint.

Activities
◦ Session chair of EAI International Conference on Wireless and Satellite Systems
◦ Session chair of IEEE GLOBECOM, 2023.
◦ Independent reviewer:

- IEEE JSAC
- IEEE TWC
- IEEE TIFS
- IEEE IoTJ

SKILLS

Program Skill
Proficient in PYTHON, MATLAB, and Origin.
Language: IELTS: 7.0**;** GRE: 333