

FANYI MENG

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🎓 EDUCATION

The Chinese University of Hong Kong(Shenzhen) (CUHKSZ) 2023 – Present

M.phil student in Computer and Information Engineering (CIE) , expected March 2025

Southern University of Science and Technology (SUSTech) 2019 – 2023

B.S. in Electrical and Electronic Engineering (EEE) , Communication Engineering

- GPA : **3.47 / 4** (85 / 100)

👤 EXPERIENCE

Southern University of Science and Technology Oct.2020 – Feb.2023

Undergrad Research Assistant Supervisor: Rui Wang

Project with **HONOR**

- Applied **Reinforcement Learning** to optimize the Age of Information (AoI) in an IoT system,
- Utilized **MATLAB's WLAN Toolbox** for simulation of the Distributed Coordination Function (DCF) within the Wi-Fi MAC layer.
- Utilized **NS-3** to analyze the Enhanced Distributed Channel Access (EDCA) mechanism in 802.11ac, focusing on throughput and latency.
- Refined EDCA parameters to improve overall **QoS** performance in Channel Allocation for Wi-Fi networks.

Shenzhen Research Institute of Big Data Mar.2023 – Present

Research Assistant Supervisor: Guangxu Zhu

DIIS Laboratory Internal Project

- Extracted **Channel State Information (CSI)** from Wi-Fi signals on Intel 5300 NIC, ESP32 and Router RT-AC86U .
- Built a Wi-Fi Sensing System for data collection, modal training and function visualization.
- Employed three Intel 5300 for sub-2-second latency in real-time human **tracking and localization**.

Project with **China Mobile**

- Used Sionna to simulate ISAC performance in real-world map.
- (Ongoing) Utilizing Sionna and AirSim for simulating real-world communication/sensing.

📖 PUBLICATION

- ★ **Finding the Missing Data: A BERT-inspired Approach Against Package Loss in Wireless Sensing**
Zhao, Zijian, Tingwei Chen, **Fanyi Meng**, Hang Li, Xiaoyang Li, and Guangxu Zhu
IEEE INFOCOM DeepWireless Workshop 2024.
- ★ **Coverage Analysis for Air-Ground Integrated-Sensing-and-Communication Networks**
Yihang Jiang, **Fanyi Meng**, Xinhao Li, Xiaoyang Li, Guangxu Zhu, Kaifeng Han, Qingjiang Shi
International Conference on Ubiquitous Communication 2024. (Accepted)

⚙️ SKILLS

- Programming Languages: Python > MATLAB > C++ > Labview = Java
- Platform: Ubuntu 20.04, Debian 10 , USRP X410
- Tools: Sionna, NS-3, AirSim, ROS

♡ HONORS AND AWARDS

3rd Prize, the First Wi-Fi Sensing Contest

Dec. 2023

Advanced to the semifinals in International Algorithm Competition of Pazhou Lab

Nov 2023

❖ MISCELLANEOUS

- Website: <http://fanyimeng0.github.io>
- GitHub: <https://github.com/fanyimeng0>
- Languages: English - TOFEL 92, Mandarin - Native speaker