

# Haoyang WANG

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## 📌 Research Interests

📱 Mobile computing; ★ Internet of Things (IoT); 📡 Distributed & embedded AI.

## 🎓 Education

**Tsinghua University, China**

July 2022 - 2027(Expected)

*Ph.D. Candidate in Data Science and Information Technology*

- Supervisor: Prof. Xinlei Chen

**Central South University, China**

Aug. 2018 - July 2022

*B.Eng. in Internet of Things with **Excellent Thesis & Graduation Award***

- Supervisor: Prof. Yaoxue Zhang and Prof. Ju Ren

## 📄 Publicationns

( \* denotes co-primary author, and # denotes corresponding author)

### 📄 Conference Papers

[C5] **Haoyang Wang**, Jingao Xu, Chenyu Zhao, Zihong Lu, Chen Cheng, Xuecheng Chen, Xiao-Ping Zhang, Yunhao Liu, Xinlei Chen#, "TransformLoc: Transforming MAVs into Mobile Localization Infrastructures in Heterogeneous Swarms", IEEE Conference on Computer Communications (**IEEE INFOCOM**), 2024.

[C4] **Haoyang Wang\***, Yuxuan Liu\*, Chenyu Zhao, Jiayou HE, Xinlei Chen#, "CaliFormer: Leveraging Unlabeled Measurements to Calibrate Sensors with Self-supervised Learning", Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies CPD workshop (**ACM UbiComp CPD workshop**), 2023. (**Best Presentation Award**).

[C3] Chenyu Zhao\*, **Haoyang Wang\***, Jiaqi Li, Fanhang Man, Shilong Mu, Wenbo Ding, Xiao-Ping Zhang, Xinlei Chen#, "SmoothLander: A Quadrotor Landing Control System with Smooth Trajectory Guarantee Based on Reinforcement Learning", Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies CPD workshop (**ACM UbiComp CPD workshop**), 2023.

[C2] **Haoyang Wang\***, Xuecheng Chen\*, Yuhao Cheng, Chenye Wu, Fan Dang, Xinlei Chen#, "H-SwarmLoc: Efficient Scheduling for Localization of Heterogeneous MAV Swarm with Deep Reinforcement Learning", ACM Conference on Embedded Networked Sensor Systems CML-IoT workshop(**ACM SenSys CML-IoT workshop**), 2022.

[C1] Xuecheng Chen, **Haoyang Wang**, Zuxin Li, Wenbo Ding, Fan Dang, Chengye Wu, Xinlei Chen#, "DeliverSense: Efficient delivery drone scheduling for crowdsensing with deep reinforcement learning", Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies CPD workshop (**ACM UbiComp CPD workshop**), 2022. (**Best Paper Award**).

### ✉ Journal Papers

[J1] Jiawei Guo, **Haoyang Wang**, Wei Liu, Guosheng Huang, Jinsong Gui, Shaobo Zhang, "A lightweight verifiable trust based data collection approach for sensor-cloud systems", Journal of Systems Architecture: Embedded Software Design (**Elsevier JSA, CCF B**), 2021.

### 🗨 Posters & Demos

[P3] **Haoyang Wang**, Xinyu Luo, Ciyu Ruan, Xuecheng Chen, Wenhua Ding, Yuxuan Liu, Xinlei Chen#, "Poster: Fusing Event and Depth Sensing for Dynamic Objects Localization and Tracking", The International Workshop on Mobile Computing Systems and Applications (**ACM HotMobile**) 2024.

[P2] Yuhan Cheng\*, Xuecheng Chen\*, Yixuan Yang, **Haoyang Wang**, Yuxuan Liu, Xinlei Chen#, "Poster: Olfactory Sensing in Turbulent Airflow via Collaborative Robots", The International Workshop on Mobile Computing Systems and Applications (**ACM HotMobile**) 2024.

[P1] **Haoyang Wang**, Fanhang Man, Zihan Wang, Yuxuan Liu, Xinlei Chen, Wenbo Ding#, "Poster: TENG-enabled Self-powered Human-machine Interfaces for the Metaverse", The ACM/IEEE International Conference on Information Processing in Sensor Networks (**ACM/IEEE IPSN**), 2023.

## Honors & Awards

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2023 **1st in Low-Altitude Economy Flight Management Challenge Creative Competition**, Meituan Inc.

2023 **Best Presentation Award** (*Top 1 out of all submissions*), ACM Ubicomp 2023 CPD

2023 **Second-class Overall Excellence Scholarship**, Tsinghua University

2022 **Best Paper Award** (*Top 1 out of all submissions*), ACM Ubicomp 2022 CPD

2022 **Outstanding Thesis & Outstanding Graduate**, Central South University

2022 **Excellent Graduate**, Hunan province

2019 **National Scholarship**, China

2019 **Finalist of National College Students Intelligent Design Competition** (*Top 5 out of all teams*), CAAI

2019 **First Prize of China Robot Competition Advanced Vision Competition** (*Top 1 out of all teams*), CAA

## Professional Experience

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### Teaching

2023 **Teaching Assist**: Introduction to AIoT; Fall 2023, Tsinghua University

2023 **Teaching Assist**: Urban low altitude messenger; Spring 2024, Tsinghua University and Meituan Inc.