Hui Zhao — Curriculum Vitae

🏛 Universe of Electronic Science & Technology of China, China

🏛 Universe College Dublin, Ireland

🌐 Belfield, Dublin 4, Irelan

✉ zhaohui2022@std.uestc.edu.cn & hui.zhao1@ucdconnect.ie

📱 (+353) 873435101

I am pursuing the Ph.D. degree with the School of Computer Science and Engineering, University of Electronic Science and Technology of China. My research is supervised by Prof. *Zheng Chang*. Now I am a visiting Ph.D. student at University College Dublin, supervised by Prof. *Madhusanka Liyanage*. I am a student member IEEE. I served as the TPC member of IEEE WCNC2024-WS11 and reviewer of IEEE journals. My research is primarily centered around the utilization of **AI in UAV wireless networks**. The key objectives are to address "how the UVA wireless networks can provide better wireless access service and edge computing service as aerial BSs" AND "how to realize effective data collection strategy in UAV-assisted networks" with the help of **DL/ML**.

EDUCATION

University College Dublin — **Majoring in Computer Science**
Visiting Ph.D. IN School of Computer Science — *November 2024 - Present*

– Supervised by Prof. Madhusanka Liyanage

University of Electronic Science and Technology of China — **Majoring in Computer Science**
Ph.D. IN School of Computer Science and Engineering — *September 2022 - Present*

– Supervised by Prof. Zheng Chang

Beijing University of Technology — **Majoring in Computer Science**
M.S. IN Faculty of Information Technology — *September 2019 - June 2022*

– Supervised by Assoc. Prof. Xiaobin Xu

Henan Polytechnic University — **Majoring in Engineering**
B.E. IN School of Engineering — *September 2014 - June 2018*

RESEARCH INTERESTS

UAV networks, Mobile Edge Computing, Internet of Things, LLM for Networking

PUBLICATIONS

Journal

[1] Y. Bai, **H. Zhao**, X. Zhang, Z. Chang, R. Jäntti and K. Yang, "Toward Autonomous Multi-UAV Wireless Network: A Survey of Reinforcement Learning-Based Approaches," *IEEE Communications Surveys & Tutorials*, vol. 25, no. 4, pp. 3038-3067, Fourthquarter 2023. (**IF: 35.6, Rank: Q1**)

[2] **H. Zhao**, G. Lu, Y. Liu, Z. Chang, L. Wang and T. Hämäläinen, "Safe DQN-Based AoI-Minimal Task Offloading for UAV-Aided Edge Computing System," **IEEE Internet of Things Journal**, doi: 10.1109/JIOT.2024.3422670. (**IF: 10.6, Rank: Q1**)

[3] X. Zhang, W. Chen, **H. Zhao**, Z. Chang, Z. Han, "Joint Accuracy and Latency Optimization for Quantized Federated Learning in Vehicular Networks." **IEEE Internet of Things Journal**, doi: 10.1109/JIOT.2024.3406531. (**IF: 10.6, Rank: Q1**)

[4] X. Xu, Q. Wang, S. Li, H. Xu, **H. Zhao** and Z. Han, "An Adaptive Dual-mode Task-oriented Resource Management Strategy for GEO Relay Systems," *EEE Transactions on Mobile Computing*, vol. 23, no. 5, pp. 4303-4317, May 2024. (**IF: 7.9, Rank: Q1**)

[5] X. Xu, **H. Zhao**, H. Yao and S. Wang, "A Blockchain-Enabled Energy-Efficient Data Collection System for UAV-Assisted IoT," *IEEE Internet of Things Journal*, vol. 8, no. 4, pp. 2431-2443, 15 Feb.15, 2021. (**IF: 10.6, Rank: Q1**)

[6] X. Xu, **H. Zhao**, C. Liu, et al. Resource management of GEO relays for real-time remote sensing. *Peer-to-Peer Netw. Appl.* 14, 3333–3348 (2021). (**IF: 4.2, Rank: Q2**)

Conferences

[1] **H. Zhao**, X. Zhang, W. Chen, X. Xu, L. Wang and Z. Chang, "Multi-dimensional Resource Allocation in HAP-assisted UAV Wireless Networks for IoRT Data Collection," *in IEEE Global Communications Conference*, Cape Town, South Africa, 2024, pp. 217-222.

[2] **H. Zhao** and Z. Chang, "Energy Efficient Trajectory Optimization and Resource Allocation for HAP-assisted UAV Wireless Networks," *in IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, 2023, pp. 3765-3770.

[3] X. Xu, **H. Zhao**, C. Liu, C. Fan, Z. Liang and S. Wang, "On the Aggregated Resource Management for Satellite Edge Computing," *in IEEE International Conference on Communications*, Montreal, QC, Canada, 2021, pp. 1-6.

Patents

[1] **H. Zhao**, X. Xu, X. Li, J. Li, X. Xue, W. Zhang, J. Wu, "An Adaptive Data Transmission Method Based on MPTCP and Network Encoding," Beijing: CN113055285A,2021-06-29.

Ongoing Works

[1] **H. Zhao**, M. Luan, M. Liyanage, Z. Chang, "Multi-UAV-assisted Collaborative Aerial Access in Integrated Sensing-Communication-Computing System." (**submitted to IEEE Transactions on Wireless Communications (major revision)**)

Paper Reviewer

- **IEEE Transactions on Machine Learning in Communications and Networking**

- **IEEE Conference on Vehicular Technology (VTC) 2025-spring**

- **IEEE Wireless Communications and Networking Conference 2024**

- **IEEE Global Communications Conference 2023**

- **IEEE International Conference on Computer Communications 2022**

- **IEEE Network Magazine**

- **IEEE Internet of Things Journal**

- **IEEE Transactions on Cognitive Communications and Networking**

- **China Communications**

AWARDS & HONORS

- Ph.D. Student Scholarship from UESTC   School level   2023 & 2024
- National Scholarship for Postgraduate Students   **National level**   2022
- Outstanding Graduate Students   School level   2022
- The First Price Scholarship (3 times)   School level   2019-2021
- Special Scholarship for Technological Innovation   School level   2020