Haiyan Hu, Postdoc

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Haiyan HU is a postdoctoral researcher at The Hong Kong University of Science and Technology (HKUST), advised by Prof. Qian Zhang. She obtained her Ph.D. degree from the same institution. Before that, she received her B.Eng. degree in Computer Science and Technology from Wuhan University, working with Prof. Yanjiao Chen.

She is broadly interested in the intersection of technology and health, especially in areas such as Smart Healthcare, Optical Sensing, and the Artificial Intelligence of Things (AIoT). Her current research focuses on AIoT-enabled and sensor-based intelligent systems for food-related applications.

Education

2020 – 2025   🔖 **The Hong Kong University of Science and Technolog (HKUST)**
Ph.D. of Computer Science

2016 – 2020   🔖 **Wuhan University (WHU)**
Bachelor of Computer Science

Research Publications

Journal Articles

1. H. Hu, Y. Zhu, S. Chen, Q. Huang, and Q. Zhang, "FruitPhone: Detecting Sugar Content in Fruits Using Unmodified Smartphones with Spectral Imaging," *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, vol. 9, no. 3, pp. 1–29, 2025.

2. Y. Zhu, H. Hu, B. Yang, Q. Huang, Q. Zhang, and W. Li, "FreshSpec: Sashimi Freshness Monitoring With Low-Cost Multispectral Devices," *IEEE Transactions on Mobile Computing*, 2025.

3. Y. Zhu, H. Hu, B. Yang, *et al.*, "MeatSpec-G: Generalized Low-Cost Spectral Imaging for Ubiquitous Meat Fraud Inspection," *IEEE Transactions on Mobile Computing*, 2025.

4. H. Hu, Q. Huang, and Q. Zhang, "BabyNutri: a cost-effective baby food macronutrients analyzer based on spectral reconstruction," *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, vol. 7, no. 1, pp. 1–30, 2023.

5. H. Hu, Q. Zhang, and Y. Chen, "NIRSCam: A mobile near-infrared sensing system for food calorie estimation," *IEEE Internet of Things Journal*, vol. 9, no. 19, pp. 18 934–18 945, 2022.

Conference Proceedings

1. H. Hu, Y. Zhu, B. Yang, H. Kang, S. Chen, and Q. Zhang, "MeatSpec: Enabling Ubiquitous Meat Fraud Inspection through Consumer-Level Spectral Imaging," in *Proceedings of the 30th Annual International Conference on Mobile Computing and Networking*, 2024, pp. 861–874.

Honors & Awards

2022   🔖 **RedBird Academic Excellence Award**, HKUST.

2018   🔖 **National Scholarship**, WHU.

🔖 **Pacemaker to Merit Student**, WHU.

Honors & Awards (continued)

2017   ⚑   **National Scholarship**, WHU.

Service

Invited reviewer   for IMWUT'25, TMC'25, IMWUT'24.