Zheng Zhang

The Hong Kong Polytechnic University
Hong Kong, China
Google Scholar

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Research Interests

Medical image reconstruction, Brain-Computer Interfaces, Generative Models, Foundation Models for Healthcare.

Education

The Hong Kong Polytechnic University (QS 54) *2025 – present*
Ph.D. Student
Advisor: Prof. Jing Qin

Imperial College London (QS 2) *2021 – 2022*
M.Sc. in Biomedical Engineering
Advisor: Prof. Mengxing Tang

University of Nottingham (QS 97) *2017 – 2021*
B.Sc. (Hons) in Computer Science with Artificial Intelligence First Class Honours

Publications

Conference Publications

1. **FlowPET: Physics-Informed Symplectic Flow Matching for Low-Count PET Reconstruction**.
Zheng Zhang, Hao Tang, Yingying Hu, Zhanli Hu, Jing Qin.
*International Conference on Machine Learning (**ICML**), 2026.* **[CCF-A]**

2. **FourierPET: Deep Fourier-based Unrolled Network for Low-count PET Reconstruction**.
Zheng Zhang, Hao Tang, Yingying Hu, Zhanli Hu, Jing Qin.
*AAAI Conference on Artificial Intelligence (**AAAI**), 2026.* **[CCF-A, Oral Presentation]**

Journal Publications

1. **Prompt-Agent-Driven Integration of Foundation Model Priors for Low-Count PET Reconstruction**.
X. Xie, W. Zhao, M. Nan, **Zheng Zhang**, Y. Wu, H. Zheng, D. Liang, M. Wang, Z. Hu.
*IEEE Transactions on Medical Imaging (**TMI**), 2025.* **[JCR Q1, IF=9.8]**

Research Experience

SIAT, Chinese Academy of Sciences *2023 – 2025*
Research Assistant Advisor: Prof. Zhanli Hu
Foundation model priors and self-supervised disentanglement for low-count PET reconstruction.
Output: 1 JCR Q1 journal (TMI 2025).

ULIS, Imperial College London *2021 – 2022*
M.Sc. Research Project Advisor: Prof. Mengxing Tang
Neural super-resolution for ultrasound localization microscopy (ULM).

University of Nottingham *2020 – 2021*
B.Sc. Final Year Project (Distinguished) Advisor: Prof. Jianfeng Ren
Micro-Doppler radar sensing for human gait recognition.

Awards & Honours

- **Head's Scholarship**, University of Nottingham *2019 – 2020*
Awarded to the top 10% of students in the department.
- **Distinguished Final Year Project Award**, University of Nottingham *2020 – 2021*
Project: "Radar Human Activity Recognition Using Micro-Doppler Signature"