# Qing Wu

393 Middle Huaxia Road, 201210, Shanghai, China wuqing@shanghaitech.edu.cn • 138-8560-8782 • https://iwuqing.github.io

## **EDUCATION** ShanghaiTech University

Shanghai, China

■ Ph.D. Student in *Electronic Science and Technology* 

Sep 2020 – Jul 2025 (Expected)

• Adviser: Prof. Yuyao Zhang

• Focus: Inverse Problems in Medical Imaging (e.g., CT and MRI reconstruction)

### China University of Geosciences, Wuhan

Hubei, China

■ B.S. in *Communication Engineering* 

Sep 2016 - Jul 2020

## RESEARCH EXPERIENCE

## Smart Medical Image Learning & Enhancement (SMILE) LAB

Shanghai, China

■ Ph.D. Student

Sep 2020 – Present

Adviser: Prof. Yuvao Zhang

• Project: Unsupervised Model-driven Deep Neural Representation for CT Reconstruction

• Focus: Sparse-View CT, CT Metal Artifact Reduction, CT Self-Calibration, MRI Super-Resolution, etc.

## SELECTED PUBLICATIONS

#### **JOURNALS**

- [J1] Qing Wu, Ruimin Feng, Hongjiang Wei, Jingyi Yu, Yuyao Zhang, "Self-Supervised Coordinate Projection Network for Sparse-View Computed Tomography", *IEEE Transactions on Computational Imaging (IEEE TCI)*
- [J2] Qing Wu, Yuwei Li, Yawen Sun, Yan Zhou, Hongjiang Wei, Jingyi Yu, Yuyao Zhang, "An Arbitrary Scale Super-Resolution Approach for 3D MR Images via Implicit Neural Representation", *IEEE Journal of Biomedical and Health Informatics (IEEE J-BHI)*
- [J3] Chaolin Rao\*, Qing Wu\*, Pingqiang Zhou, Jingyi Yu, Yuyao Zhang, Xin Lou, "An Energy-Efficient Accelerator for Medical Image Reconstruction From Implicit Neural Representation", IEEE Transactions on Circuits and Systems I: Regular Papers (IEEE TCAS-I)

## CONFERENCES

- [C1] Qing Wu, Lixuan Chen, Ce Wang, Hongjiang Wei, S. Kevin Zhou, Jingyi Yu, Yuyao Zhang, "Unsupervised Polychromatic Neural Representation for CT Metal Artifact Reduction", Thirty-seventh Conference on Neural Information Processing Systems (NeurIPS 2023)
- [C2] Qing Wu, Yuwei Li, Lan Xu, Ruimin Feng, Hongjiang Wei, Qing Yang, Boliang Yu, Xiaozhao Liu, Jingyi Yu, Yuyao Zhang, "IREM: High-Resolution Magnetic Resonance Image Reconstruction via Implicit Neural Representation", 24th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2021)
- [C3] Qing Wu, Xin Li, Hongjiang Wei, Jingyi Yu, Yuyao Zhang, "Joint Rigid Motion Correction and Sparse-View CT via Self-Calibrating Neural Field", *IEEE 20th International Symposium on Biomedical Imaging (IEEE ISBI 2023)*

## TEACHING EXPERIENCE

## CS276: Computational Photography, ShanghaiTech University

Shanghai, China

Guest Lecture

Fall, 2022/2023

■ Instructor: Prof. Jingyi Yu

## CS270B: Advanced Digital Image Processing, ShanghaiTech University

Shanghai, China

■ Teaching Assistant

Spring, 2023

■ Instructor: Prof. Yuyao Zhang

## AWARDS & SCHOLARSHIPS

## Outstanding Student, ShanghaiTech University

2022 - 2023

• Top 5% students selected by Reward and Punishment Committee of ShanghaiTech University.

### Merit Student, ShanghaiTech University

2020 - 2021

• Top 10% students selected by Reward and Punishment Committee of Shanghai Tech University.

## ACADEMIC SERVICE

### **Reviewer for Journals**

- IEEE Transactions on Computational Imaging (IEEE TCI)
- IEEE Journal of Biomedical and Health Informatics (IEEE J-BHI)
- Journal of Computational Design and Engineering

### **Reviewer for Conferences**

- International Conference on Machine Learning (ICML 2024)
- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2024)
- International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2023/2024)
- IEEE International Symposium on Biomedical Imaging (IEEE ISBI 2024)

#### Volunteer

• Annual ShanghaiTech Symposium on Information Science and Technology (ASSIST 2023)

**LANGUAGES** 

- Mandarin: Native language.
- English: Intermediate (reading, writing).

**SKILLS** 

LATEX, Python, MATLAB, ITK-SNAP, Pytorch, Microsoft Word, Microsoft PowerPoint, etc.

**INTERESTS** 

Esports (e.g., CS2, League of Legends), Music, Sleeping.

REFERENCES

Prof. Yuyao Zhang

Assistant Professor of School of Information Science and Technology ShanghaiTech University 393 Middle Huaxia Road, 201210, Shanghai, China zhangyy8@shanghaitech.edu.cn • (+86) 021-20684863

[compiled on 2024-03-04]