

QING WU

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Research interests

Inverse Problems in Medical Imaging, Neural Representations.

Education

2020 – Present	ShanghaiTech University – Ph.D. Candidate in <i>Electronic Science and Technology</i> – Advisor: Prof. Yuyao Zhang	Shanghai, China
2016 – 2020	China University of Geosciences, Wuhan – B.S. in <i>Communication Engineering</i>	Hubei, China

Selected publications

NeurIPS 2023	Qing Wu , Lixuan Chen, Ce Wang, Hongjiang Wei, S. Kevin Zhou, Jingyi Yu, Yuyao Zhang, “ Unsupervised Polychromatic Neural Representation for CT Metal Artifact Reduction ”, <i>Thirty-seventh Conference on Neural Information Processing Systems</i> .
IEEE TCI 2023	Qing Wu , Ruimin Feng, Hongjiang Wei, Jingyi Yu, Yuyao Zhang, “ Self-Supervised Coordinate Projection Network for Sparse-View Computed Tomography ”, <i>IEEE Transactions on Computational Imaging</i> .
IEEE ISBI 2023	Qing Wu , Xin Li, Hongjiang Wei, Jingyi Yu, Yuyao Zhang, “ Joint Rigid Motion Correction and Sparse-View CT via Self-Calibrating Neural Field ”, <i>IEEE 20th International Symposium on Biomedical Imaging</i> .
IEEE TCAS-I 2023	Chaolin Rao*, Qing Wu* , Pingqiang Zhou, Jingyi Yu, Yuyao Zhang, Xin Lou, “ An Energy-Efficient Accelerator for Medical Image Reconstruction From Implicit Neural Representation ”, <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> .
IEEE J-BHI 2022	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 ”, <i>IEEE Journal of Biomedical and Health Informatics</i> .
MICCAI 2021	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 ”, <i>24th International Conference on Medical Image Computing and Computer Assisted Intervention</i> .

Patents

- WO2023284275A1 CN117651975A Yu Jingyi, Zhang Yuyao, Lou Xin, Wu Qing, Rao Chaolin, Yang Jiawen, “**Real-time volumetric rendering**”, *Filing date: 2022-01-11, Publication date: 2023-01-19.*
- WO2023283795A1 CN115619632A Yu Jingyi, Zhang Yuyao, Xu Lan, Li Yuwei, Wu Qing, “**Method for high-resolution image reconstruction**”, *Filing date: 2021-07-12, Publication date: 2023-01-19.*
- WO2024078049A1 Yu Jingyi, Zhang Yuyao, Wu Qing, “**System and method for near real-time and unsupervised coordinate projection network for computed tomography images reconstruction**”, *Filing date: 2023-06-30, Publication date: 2024-04-18.*

Teaching experience

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|----------------|---|-------------------------|
| Fall 2022/2023 | CS276: Computational Photography
– Position: Guest Lecture
– Instructor: Prof. Jingyi Yu | Shanghaitech University |
| Spring 2023 | CS276: Computational Photography
– Position: Teaching Assistant
– Instructor: Prof. Yuyao Zhang | Shanghaitech University |

Honors and scholarships

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|------|-------------------------------------|-------------------------|
| 2023 | Outstanding Student (Top 5%) | ShanghaiTech University |
| 2021 | Merit Student (Top 10%) | ShanghaiTech University |

Academic service

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| Reviewer | Conferences: <i>CVPR’25, AISTATS’25, AAAI’25, ICLR’25, NeurIPS’24, ICML’24, CVPR’24, MICCAI’24, IEEE ISBI’24, MICCAI’23</i>
Journals: <i>MedIA, IEEE TNNLS, IEEE TCI, IEEE J-BHI, JCDE</i> |
| Volunteer | Conference: <i>ASSIST’23</i> |

Technical skills

Programming languages: Python, MATLAB

Software: \LaTeX , Git, ITK-SNAP, Microsoft Word, Microsoft PowerPoint, etc.

Languages: Mandarin (native), English (basic)

Other interests

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