

# Qing Wu

Email: wuqing@shanghaitech.edu.cn

Address: 393 Middle Huaxia Road, 201210, Shanghai, China

Google Scholar: <https://scholar.google.com/citations?user=A1E80HUAAAAJ>

## Research interests

Inverse Problems in Medical Imaging, Neural Representations.

## Education

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

## Selected publications

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|---------------------|--|
| 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 Co-ordinate 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<br>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<br>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 | <b>CS276: Computational Photography</b><br>– Position: Guest Lecture<br>– Instructor: Prof. Jingyi Yu        | Shanghaitech University |
| Spring 2023    | <b>CS276: Computational Photography</b><br>– Position: Teaching Assistant<br>– Instructor: Prof. Yuyao Zhang | Shanghaitech University |

## Honors and scholarships

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|------|-------------------------------------|-------------------------|
| 2023 | <b>Outstanding Student</b> (Top 5%) | ShanghaiTech University |
| 2021 | <b>Merit Student</b> (Top 10%)      | ShanghaiTech University |

## Academic service

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|-----------|---|
| Reviewer  | <b>Conferences:</b> ICML 2024, CVPR 2024, MICCAI 2023/2024, IEEE ISBI 2024<br><b>Journals:</b> IEEE TCI, IEEE J-BHI, JCDE |
| Volunteer | <b>Conference:</b> <i>ASSIST 2023</i>   |

## Technical skills

**Programming languages:** Python, MATLAB

**Software:** L<sup>A</sup>T<sub>E</sub>X, Git, L<sup>A</sup>T<sub>E</sub>X, ITK-SNAP, Microsoft Word, Microsoft PowerPoint, etc.

**Languages:** Mandarin (Native), English (basic)

## Other interests

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