

Yazhou Zhu 朱亚洲

Ph.D. in Computer Science | Medical Image Analysis & AI

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Profile

Ph.D. in Computer Science (Nanjing University of Science and Technology, graduated June 2026), specializing in medical image analysis, with research interests in few-shot and cross-domain medical image segmentation, MR/CT image reconstruction, and denoising. **First author of 10 papers, all published or accepted**, including the flagship journal **IEEE Transactions on Image Processing** (CCF-A), two **MICCAI** papers, and SCI journals such as ACM TOMM, IEEE TIM, Artificial Intelligence in Medicine, and Pattern Recognition Letters. Proficient in PyTorch, TensorFlow, and Python; experienced in independently driving research projects and collaborating across institutions, with strong Chinese/English scientific reading and writing demonstrated through extensive first-author English publications.

HIGHLIGHTS

- Research output: 10 first-author papers (all published/accepted), including IEEE TIP (CCF-A) and 2 × MICCAI, plus 6 SCI journal articles.
- Scientific writing & collaboration: extensive English first-author publications and cross-institutional research collaboration; able to design and communicate study protocols.
- Engineering & data analysis: Python, C/C#, Matlab; PyTorch/TensorFlow; medical-image pipelines with SimpleITK, Nibabel, and NumPy.

Education

Ph.D. Computer Science

Nanjing University of Science and Technology • School of Computer Science and Engineering
Research: cross-domain few-shot medical image segmentation | Advisor: **Prof. Haofeng Zhang**

Feb 2022 – Jun 2026

M.E. Software Engineering

Jiangnan University • School of Artificial Intelligence and Computer Science
Research: deep-learning-based MR image denoising and brain-tumor segmentation | Advisor: **Prof. Xiang Pan**

Sep 2018 – Jun 2021

B.E. Mechanical Engineering

Changzhou University | GPA 4.1 / 5.0 (82 / 100)

Sep 2014 – Jun 2018

Publications • First Author

First-author × 10

All Published / Accepted

MICCAI × 2

IEEE TIP 2025 • CCF-A

6 SCI Journals

Ph.D. — Published & Accepted (2022–2026)

- Yazhou Zhu**, Shidong Wang, Tao Zhou, Zechao Li, Haofeng Zhang, Ling Shao. Cross-Domain Few-Shot Medical Image Segmentation via Dynamic Semantic Matching. **IEEE Trans. on Image Processing**, 34: 6669–6682, 2025 • SCI • CCF-A
- Yazhou Zhu**, Shidong Wang, Tong Xin, Haofeng Zhang. Adversarial Prototypical Perturbation for Cross-domain Few-shot Medical Image Segmentation. **ACM Trans. on Multimedia Computing, Communications, and Applications (ACM TOMM)**, 2026 • Just Accepted • DOI: 10.1145/3832315 • SCI
- Yazhou Zhu**, Haofeng Zhang. MAUP: Training-free Multi-Center Adaptive Uncertainty-aware Prompting for Cross-domain Few-shot Medical Image Segmentation. **MICCAI 2025** • Conf.
- Yazhou Zhu**, Minxian Li, Qiaolin Ye, Shidong Wang, Tong Xin, Haofeng Zhang. RobustEMD: Domain Robust Matching for Cross-domain Few-shot Medical Image Segmentation. **Artificial Intelligence in Medicine**, 2025 • SCI
- Yazhou Zhu**, Shidong Wang, Tong Xin, Zheng Zhang, Haofeng Zhang. Partition-A-Medical-Image: Extracting Multiple Representative Sub-regions for Few-shot Medical Image Segmentation. **IEEE Trans. on Instrumentation and Measurement**, 73: 1–12, 2024 • SCI
- Yazhou Zhu**, Ziming Chen, Shidong Wang, Haofeng Zhang. Learning De-biased Prototypes for Few-shot Medical Image Segmentation. **Pattern Recognition Letters**, 183: 71–77, 2024 • SCI
- Yazhou Zhu**, Shidong Wang, Tong Xin, Haofeng Zhang. Few-shot Medical Image Segmentation via a Region-enhanced Prototypical Transformer. **MICCAI 2023** • Conf.

M.E. — Published (2018–2021)

- Yazhou Zhu**, Xiang Pan, Tianxu Lv, Yuan Liu, Lihua Li. DESN: An Unsupervised MR Image Denoising Network with Deep Image Prior. **Theoretical Computer Science**, 2021 • SCI
- Yazhou Zhu**, Xiang Pan, Jing Zhu, Lihua Li, Yuan Liu. Denoising of Magnetic Resonance Images with Deep Neural Regularizer Driven by Deep Image Prior. **IEEE DSAA 2020** • Conf.
- Yazhou Zhu**, Xiang Pan, Jing Zhu, Lihua Li. Multi-scale Strategy Based 3D Dual-encoder Brain Tumor Segmentation Network with Attention Mechanism. **IEEE BIBM 2020** • Conf.

Expertise & Skills

Medical Image Analysis: few-shot & cross-domain segmentation; unsupervised MR denoising (Deep Image Prior); 3D CT/MR brain-tumor segmentation.

Deep Learning: prototype networks, Transformers, encoder–decoder networks (U-Net / V-Net), and RNNs; few-shot / cross-domain learning; able to

build models from scratch. Frameworks: PyTorch, TensorFlow.

Programming & Data: Python (proficient), C / C#, Matlab; SimpleITK, Nibabel, NumPy; preprocessing (Z-score normalization, cropping, augmentation) and data analysis.

Languages: Chinese (native); English (academic reading & writing; first-author English publications).

Honors & Awards

2020 Third-class Academic Scholarship, Jiangnan University

2019 Second-class Academic Scholarship, Jiangnan University

2016 Third Prize, HuaChen Cup East China CAD Design Competition

2017 Third-class Scholarship, Changzhou University

2016 Second-class Scholarship, Changzhou University