Yuxin Zhang
Ph.D. Candidate

👥 1997-09-24   🏛 LS2N, Centrale Nantes   📍 France   📑 Google Scholar

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My research interest is in Biomedical Ultrasound imaging. I hold a firm belief in the future of digital healthcare!

🎓 Education

2024.12 2021.09	**LS2N, Centrale Nantes, France** Ph.D. Candidate • Medical Ultrasound Image Reconstruction with Deep Learning
2021.06 2019.09	**Centrale Nantes, France** 2nd Year Master • Signal and Image Processing 1nd Year Master • Industrial Engineering
2019.06 2015.09	**Harbin Institute of Technology, China** Bachelor's Degree • Civil Engineering

🔧 Skills & Languages

US Tools	Field-II, K-Wave, MUST, Aria
AI Tools	Pytorch, Tensorflow
Coding	Python, MATLAB
OS	🐧 Linux
Other Tools	Git, Conda, HPC, Latex
🈂 **Languages**	English B2 (work), Chinese (native), French B2 (DELF Certificate)

‹/› Projects

> Ultrasound image reconstruction by solving an inverse problem using Denoising Diffusion Restoration Models.
> **Accepted** by DGM4MICCAI (Deep Generative Models Workshop @MICCAI) 2023. Code Link, Paper Link

> Ultrasound despeckling based on the stochasticity of diffusion models.
> **Accepted** by EUSIPCO (European Signal Processing Conference) 2024. Code Link, Paper Link

> Ultrasound Image Enhancement with the Variance of Diffusion Models
> **Accepted** by IUS (International Ultrasonics Symposium) 2024.

> Multi-angle planar wave 3D ultrasound imaging with physics-informed implicit neural networks. (ongoing)
> **Accepted** by IUS (International Ultrasonics Symposium) 2024.

> RF data decluttering using an optimized ADMIRE with hyperbolic regularization. (abstract link)

💼 Presentations

2024.03	**Ultrasound Imaging based on the Variance of a Diffusion Restoration Model.** IABM, Grenoble, France. Poster, Photo
2023.10	**Ultrasound Image Reconstruction with Denoising Diffusion Restoration Models.** DGM4MICCAI@MICCAI2023, Vancouver, Canada. Slides
2023.06	**Ultrasound Image Reconstruction with Deep Learning.** ED_seminar, Vannes, France. Slides, Video
2023.03	**Ultrasound Image Reconstruction by Solving an Inverse Problem with Denoising Diffusion Restoration Models.** AiBy4_DAY, Nantes, France. Poster1, Poster2, Slides

⚛ Awards & Certifications

> Outstanding Winner in the Mathematical Contest in Modeling (MCM 2018) (Certificate) (rate$< 1\%$)
> First Prize in the Chinese Mathematics Competitions (CMC 2017) (Certificate) (rate$< 8\%$)
> First Prize in the Undergraduate Training Progress for Innovation & Entrepreneurship (2018) (Certificate)
> Shenyang Eurasia Elite Mechanics Scholarship (Certificate)
> TensorFlow Developer Certification, Completion Certification in AI Deep Learning Specialization

⚙ Other Activities

2022.06	Gretsi Signal and Image Processing Summer School (Nice, France):, (Certificate)
2022.07	Deep Learning for Medical Imaging Summer School (Montreal, Canada):, (Certificate)