

XIANG ZHANG

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🎓 EDUCATION

University of Electronic Science and Technology of China 2022 – Present

Master of Engineering in Control Science and Engineering, expected July 2025

University of Electronic Science and Technology of China 2018 – 2022

Bachelor of Engineering in Measurement and Control Technology and Instrument

📄 PUBLICATION

Sparse-view CT Reconstruction via Attention-based Parallel Dual-domain Fusion Aug. 2024

Code, Writing SUBMITTED

The study presents a dual-domain reconstruction network for Sparse-View Computed Tomography (SVCT) that uses parallel branches for sinogram and image domains, enhanced by a global attention module. This approach minimizes error propagation and utilizes the complementary strengths of both branches. A lightweight CNN and Transformer module in the sinogram branch recovers missing projection views. The network demonstrates high performance in SVCT reconstruction, effectively reducing noise while preserving details, and is validated on a Mayo Clinic benchmark dataset.

👥 EXPERIENCE

Motion Compensation Using Deep Reinforcement Learning Jan. 2024 – Present

C#, Python, Unity ML Agents, RL, sim2real

[Tencent Internship] RF Signal Generation and Acquisition System Mar. 2024 – Jun. 2024

C, Python, Signal processing, RFSoc

Surgical Navigation and Teleoperation for Robot-assisted Spine Surgery Nov. 2022 – Present

C++, Python, ROS, OpenCV, NumPy, manipulator

Force Feedback Immersive Remote Ultrasound Diagnosis Technology Nov. 2021 – Present

C++, Python, VR, OpenCV, Eigen, manipulator

[Contest] Implement Robotic Palletizer with AGV Nov. 2020 – Sept. 2021

C++, OpenCV, navigation system, AGV, palletizer

[Contest] Automatic Rugby Robots Oct. 2019 – Oct. 2020

C/C++, OpenCV, ROS, map building, LiDAR

⚙️ SKILLS

- Programming Languages: C++, Python, \LaTeX
- Platform: Linux, FreeRTOS
- Development: PyTorch, ROS, OpenCV, Docker, CMake, Git

♡ HONORS AND AWARDS

- 2nd Prize, China University Robot Competition Oct. 2020
- 2nd Prize, China University Engineering Practice and Innovation Ability Competition Sept. 2021
- 2nd Prize, China Postgraduate Mathematical Contest in Modeling Oct. 2022