

# Wenxu Zhou

+86 19810617796 | [wenxuzhou@mail.ustc.edu.cn](mailto:wenzuzhou@mail.ustc.edu.cn) | [wenxuzhou.github.io](https://github.com/wenzuzhou)

[Wenxu Zhou](#) | [Wenxu Zhou](#) | ID 0009-0005-3078-295X | [Anhui, China](#)

## PROFILE

Master's student and researcher specializing in gaussian splatting, self-supervised learning, and 3D scene generation. Research interests include 3D computer vision and medical image analysis.

## EDUCATION

- Anhui University** Fall 2019 - Spring 2023  
B.S. in Electronics Information Engineering
- University of Science and Technology of China** Fall 2023 - Present  
M.S. in Communication Engineering
  - Advisor:** [Prof. Dong Yin](#)
  - Thesis:** Research on Lesion Identification in Endoscopic Scenes Based on Multi-modal Perception Fusion
  - Specialization:** Machine Learning & Computer Vision

## RESEARCH EXPERIENCE

- Intelligent Information Processing Laboratory (USTC)** Sept. 2023 - Present  
Focus: Industrial 3D shape analysis, dynamic scene reconstruction and semantic understanding.
  - Intelligent Anode Copper Plate Detection Terminal:** Engineered an industrial-grade copper plate measurement method fusing 3D point cloud and 2D image data; constructed a user-friendly GUI, deployed it to edge computing devices, and realized high-precision ranging (**successfully put into industrial application, accuracy:  $\pm 2\text{mm}$** ).
  - Efficient Endoscope Scene Modeling and Analysis:** Achieved high-fidelity geometric dynamic scene modeling via Gaussian Splatting; realized open-vocabulary semantic understanding of gastrointestinal scenes through semantic encoding. Leveraging the VGGT model for 3D data prediction, we pretrained a 2D-3D multi-modal visual encoder and further fine-tuned it to adapt to multiple clinical detection tasks.
- Research Internship (Songying Technology)** Jul. 2025 - Oct. 2025  
Focus: 3D In-door Scene Synthesis.
  - LLM-Driven 3D Scene Generation:** Constructed the IL3D dataset for LLM-driven scene synthesis (powered by Qwen3 series models); developed an text-guided 3D asset retrieval system and a SFT-based 3D indoor scene generation method. Open-sourced the corresponding data, code, and technical report [[🌐](#)].

## SELECTED PUBLICATIONS

- Wenxu Zhou**, Taoran Sun, Tianle Hu, Jiulin Li, Dong Yin. "Endo2DGS: Endoscopic Scene Reconstruction with High-fidelity Geometry." Chinese Conference on Pattern Recognition and Computer Vision (PRCV), 2025.
- Wenxu Zhou**, Dong Yin. "Open-Vocabulary Endoscopic Scene Understanding via 4D Language Gaussian Splatting." IEEE International Conference on Bioinformatics and Biomedicine (BIBM), 2025.
- Wenxu Zhou**, Kaixuan Nie, Hang Du, Dong Yin, Wei Huang, Siqiang Guo, Xiaobo Zhang, Pengbo Hu. "[IL3D: A Large-scale Indoor Layout Dataset for LLM-Driven 3D Scene Generation](#)." arXiv preprint arXiv:2510.12095.

## HONORS AND AWARDS

- First-Class Graduate Student Academic Scholarship:** USTC (2025).
- Second-Class Graduate Student Academic Scholarship:** USTC (2023, 2024).
- Second Prize in the Art Exhibition ([Eagle of Light, Painting](#)):** USTC Arts Education Center (2023).
- Second-Class Academic Excellence Scholarship:** AHU (2020).

## ACADEMIC SERVICES

- Teaching Assistant:** Data Structure and Algorithm, 2024 Fall.
- Undergraduate Thesis Supervisor:** Guided 3 undergraduate students on graduation thesis.
- Conference Reviewer:** PRCV, AAAI.

## SKILLS

- Programming:** Linux, Python, C/C++, PyTorch, MatLab, Qt,  $\text{\LaTeX}$ .
- 3D Tools:** OpenUSD, Open3d, Trimesh, PyTorch3D, Blender Python API.
- Technical Expertise:** Self-supervised Learning, Gaussian Splatting, SFT for LLM.
- Languages:** Chinese (Native), English (Fluent).