Wenbo Ji

Email / GitHub / Homepage/ Google Scholar

Education

- **Technical University of Munich** — Oct 2023 - Present
  M.Sc - Electrical Engineering and Information Technology - Automation and Robotics — *Munich, Germany*
  - **GPA**: 1.7/4.0 (Germany)
  - **Relevant Course**: Machine Learning and Optimization, Optimal control and Decision making
- **Tongji University** — Sept 2021 - Aug 2025
  M.Sc - Computer Science - Computer Technology — *Shanghai, China*
  - **Supervisor**: Associate Professor. Gang Wei
  - **GPA**: 4.5/5.0
  - **Relevant Course**: Pattern Recognition, Advanced Image Processing
- **Nanjing Tech University** — Sept 2017 - June 2021
  B.Sc - Mathematics - Information and Computing Science (Embedded Software) — *Nanjing, China*
  - **GPA**: 3.5/4.0
  - **Relevant Course**: Numerical Analysis, Computer Graphics, Pattern Recognition

Research Interests

- **3D Computer Vision, Computer Graphics**
  Task: Avatar Animation, 3D Scene Reconstruction, Generative Model

Publications

- **CSG-Fusion: Consistent Sparse-View Gaussian Splatting via Matching-based Fusion** — 2025
  Yan Xia, **Wenbo Ji***, Weirong Chen, Daniel Cremers* — *ICCV Workshop*
- **LiteTracker: Leveraging Temporal Causality for Accurate Low-latency Tissue Tracking** — 2025
  *Mert Asim Karaoglu, **Wenbo Ji**, Ahmed Abbas, Nassir Navab, Benjamin Busam, Alexander Ladikos* — *MICCAI*
- **RE0: Recognize Everything with 3D Zero-shot Instance Segmentation** — 2025
  Xiaohan Yan, Zijian Jiang*, Yinghao Shuai*, Nan Wang, Xiaowei Song, **Wenbo Ji**, Ge Wu, Jinyu He, Gang Wei, Zhicheng Wang* — *ICRA*

Master Thesis

- **Reconstruction of Endoscopic Scene with 4D Deformable Half Gaussian Splatting** — 2024
  Tongji University — *Shanghai, China*

Research/Internship Experiences

- **One-shot Avatar Reconstruction** — Mar 2025 - Now
  TUM Visual Computing Group — *Munich, Germany*
  - **Work with**: Jiapeng Tang
  - **Overview**: Efficient one-shot avatar identity reconstruction based on Gaussian Splatting.
- **Long-term video point tracking** — Sept 2024 - Mar 2025
  ImFusion GmbH/TUM CAMP — *Munich, Germany*
  - **Work with**: Dr. Benjamin Busam, Mert Asim Karaoglu, Dr. Alexander Ladikos
  - **Overview**: Efficient any point tracking for endoscopic video.
  - **Publication**: LiteTracker, MICCAI 2025
- **Object-Centric 3D Reconstruction and Decomposition** — Feb 2024 - Apr 2025
  Technical University of Munich/University of Oxford, TUM CVG/TUM DI-LAB/Oxford VGG — *Munich, Germany*
  - **Work with**: Prof. Dr. Daniel Cremers, Dr. Yan Xia, Dr. Chuanxia Zheng, Weirong Chen
  - **Overview**: Semantic scene decomposition with unposed image pair based on Gaussian Splatting.
  - **Publication**: CSG-Fusion, ICCV Workshop E2E3D 2025
- **Stochastic Surface Reconstruction** — July 2023 - Oct 2023
  Zhejiang University — *Hangzhou, China*
  - **Supervisor**: Prof. Yiyi Liao
  - **Overview**: Efficient point cloud stochastic reconstruction for large-scale scene.

Projects

- **Animatable Gaussian Avatar** July 2025 - August 2025
  Technical University of Munich *Munich, Germany*
  - **Overview**: Sparse view-based avatar animation with Gaussian splatting.
- **Point Cloud Based Reconstruction of Large-Scale Factory Scenes** April 2021 - Sept 2023
  Tongji University, CAD Research Center *Shanghai, China*
  - **Supervisor**: assoc. prof. Gang Wei
  - **Overview**: Instance segmentation and reconstruction on large-scale point cloud scene.

Selected Awards and Honors

- **Deutscher Akademischer Austauschdienst (DAAD) Scholarship** 2023-2024
  Technical University of Munich *Munich, Germany*
- **The First Prize Scholarship** Sept 2017 - June 2021
  Nanjing Tech University *Yearly*
- **National Encouragement Scholarship** Sept 2020
  Nanjing Tech University *Nanjing, China*

Skills

- **English - B2**
  Certificate: CET 6
- **German - B2**
  Certificates: Goethe B2, TestDaF
- **Program Languages**
  C++, Python
- **Framework & Tool**
  Pytorch, CUDA, OpenGL, MATLAB, Blender

08.18.2025