

JINGSEN ZHU

✉ jz2358@cornell.edu · 🌐 jingsenzhu.github.io · 📄 jingsenzhu

🎓 EDUCATION

Cornell University, Ithaca, NY, USA

Aug. 2024 – Present

Ph.D. student in Computer Science (CS)

Zhejiang University, Hangzhou, China

Sept. 2021 – Mar. 2024

M.S. in Computer Science (CS)

Advisor: Prof. Yuchi Huo and Prof. Rui Wang

Collaborator: Dr. Fujun Luan and Prof. Qi Ye

Zhejiang University, Hangzhou, China

Sept. 2017 – June 2021

B.Eng. in Computer Science (CS), GPA: 91.88/100, Rank: 1/154

Advisor: Prof. Kai Bu

💡 RESEARCH INTEREST

My research interests lie in the intersection between **computer graphics** and **3D vision**, including **3D representation and reconstruction**, **inverse rendering**, **scene editing and relighting**, **neural rendering**, etc. I used to research computer architecture and system security during my undergraduate years.

📖 PUBLICATIONS

* denotes equal contribution.

- **Inverse Rendering using Multi-Bounce Path Tracing and Reservoir Sampling**
Yuxin Dai*, Qi Wang*, Jingsen Zhu*, Dianbing Xi, Yuchi Huo, Chen Qian, Ying He
International Conference on Learning Representations (ICLR) 2025. [Arxiv] [Project] [Code]
- **FuseSR: Super Resolution for Real-time Rendering through Efficient Multi-resolution Fusion**
Zhihua Zhong*, Jingsen Zhu*, Yuxin Dai, Chuankun Zheng, Guanlin Chen, Yuchi Huo, Rui Wang, Hujun Bao
SIGGRAPH Asia 2023 Conference Papers. [Arxiv] [Project] [Code]
- **Seal-3D: Interactive Pixel-Level Editing for Neural Radiance Fields**
Xiangyu Wang*, Jingsen Zhu*, Yunlong Ran, Zhihua Zhong, Yuchi Huo, Jiming Chen, Qi Ye
IEEE/CVF International Conference on Computer Vision (ICCV) 2023. [Arxiv][Project] [Code]
- **I²-SDF: Intrinsic Indoor Scene Reconstruction and Editing via Raytracing in Neural SDFs**
Jingsen Zhu, Yuchi Huo, Qi Ye, Fujun Luan, Jifan Li, Dianbing Xi, Lisha Wang, Rui Tang, Wei Hua, Hujun Bao, Rui Wang
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) 2023. [Arxiv][Project] [Code]
- **Learning-based Inverse Rendering of Complex Indoor Scenes with Differentiable Monte Carlo Ray-tracing**
Jingsen Zhu, Fujun Luan, Yuchi Huo, Zihao Lin, Zhihua Zhong, Dianbing Xi, Rui Wang, Hujun Bao, Jiaxiang Zheng, Rui Tang
SIGGRAPH Asia 2022 Conference Papers. [Arxiv] [Project]
- **Hitchhiker: Accelerating ORAM with Dynamic Scheduling**
Jingsen Zhu, Mengming Li, Xingjian Zhang, Kai Bu, Miao Zhang, Tianqi Song
IEEE Transactions on Computers (TC), 2023. [Paper]

🏆 AWARDS

- Zhejiang Provincial Outstanding Master Graduate 2024/03
- National Scholarship 2023/10
- “Outstanding Master’s Student” Honorary Title 2023/09

- Outstanding Bachelor Graduate Award 2021/06
- “Academic Star” Honorary Title of CS department, ZJU (10/300+) 2020/09
- Zhejiang Provincial Scholarship 2018/10 and 2019/10

👤 PROFESSIONAL SERVICES

Teaching Assistant

- Introduction to Computer Vision, *Prof. Bharath Hariharan and Prof. Wei-Chiu Ma*, Cornell CS 4670
2025/01 – Present
- Visual Imaging in the Electronic Age, *Prof. Donald P. Greenberg*, Cornell CS 1620 2024/08 – 2024/12
- Operating System, *Prof. Wenbo Shen*, Zhejiang University 2020/09 – 2020/12

Technical Paper Reviewer

- NeurIPS 2025
- ICCV 2025
- ICLR 2025
- ECCV Workshop 2024
- SIGGRAPH 2023, 2024
- SIGGRAPH Asia 2024
- CVPR 2024
- IEEE TVCG 2023, 2024, 2025
- Computational Visual Media 2023

📌 MISCELLANEOUS

- Programming Languages: C/C++, Python, CUDA, GLSL
- Languages: English - Fluent (TOEFL iBT: 109, CET6: 609), Mandarin and Cantonese - Native speaker
- Tools: PyTorch, Mitsuba, \LaTeX , Markdown