

Yunzhi Yan

Department of Computer Science and Technology
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EDUCATION

- **Zhejiang University** Hangzhou, Zhejiang, China
B.E. in Computer Science and Technology
Sept. 2019 – Jun. 2023
 - GPA: Overall **92.8/100 (3.97/4.00)** Class Rank: **2/157**
- **Zhejiang University** Hangzhou, Zhejiang, China
M.S. in Computer Science and Technology
Sept. 2023 – Jun. 2024
 - Advisor: Prof. **Xiaowei Zhou**
 - Research Interests: 3D Computer Vision & Computer Graphics
- **Zhejiang University** Hangzhou, Zhejiang, China
Ph.D. in Software Engineering
Sept. 2024 – Current
 - Advisor: Prof. **Sida Peng** and Prof. **Xiaowei Zhou**
 - Research Interests: 3D Computer Vision & Computer Graphics

PUBLICATIONS OR MANUSCRIPTS

- **StreetCrafter: Street View Synthesis with Controllable Video Diffusion Models**
Yunzhi Yan*, Zhen Xu*, Haotong Lin, Haian Jin, Haoyu Guo, Yida Wang, Kun Zhan, XianPeng Lang, Hujun Bao, Xiaowei Zhou, Sida Peng (* equal contribution)
Under revision
- **LiDAR-RT: Gaussian-based Ray Tracing for Dynamic LiDAR Re-simulation**
Chenxu Zhou, Lvchang Fu, Sida Peng, **Yunzhi Yan**, Zhanhua Zhang, Yong Chen, Jiazhi Xia, Xiaowei Zhou
Under revision
- **Multi-view Reconstruction via SfM-guided Monocular Depth Estimation**
Haoyu Guo, He Zhu, Sida Peng, Haotong Lin, **Yunzhi Yan**, Tao Xie, Wenguan Wang, Xiaowei Zhou, Hujun Bao
Under revision
- **Street Gaussians: Modeling Dynamic Urban Scenes with Gaussian Splatting**
Yunzhi Yan, Haotong Lin, Chenxu Zhou, Weijie Wang, Haiyang Sun, Kun Zhan, Xianpeng Lang, Xiaowei Zhou, Sida Peng
ECCV 2024, Under revision of IEEE TPAMI
- **Representing Volumetric Videos as Dynamic MLP Maps**
Sida Peng*, **Yunzhi Yan***, Qing Shuai, Hujun Bao, Xiaowei Zhou (* equal contribution)
CVPR 2023
- **Compact Neural Volumetric Video Representations with Dynamic Codebooks**
Haoyu Guo, Sida Peng, **Yunzhi Yan**, Linzhan Mou, Yujun Shen, Hujun Bao, Xiaowei Zhou
NeurIPS 2023
- **Efficient Neural Radiance Fields for Interactive Free-viewpoint Video**
Haotong Lin, Sida Peng, Zhen Xu, **Yunzhi Yan**, Qing Shuai, Hujun Bao, Xiaowei Zhou
SIGGRAPH ASIA 2022

EXPERIENCE

- **Ant Group, Ant Research**
Advisor: Prof. **Xiaowei Zhou** Apr. 2023 – Aug. 2023
 - I collaborated with Yujun Shen and focus on modeling indoor scene with geometry prior.
- **Li Auto, Intelligent Driving Department**
Advisor: Prof. **Xiaowei Zhou** and Prof. **Sida Peng** Nov. 2023 – Nov. 2024
 - I collaborated with Yida Wang and Kun Zhan and focus on building driving simulator with neural scene representation and generative prior.
 - I developed Street Gaussians and StreetCrafter, which perform close-loop simulation on autonomous driving scenes with Gaussian Splatting and Video Diffusion Model.
- **ByteDance, FoundationVision**
Advisor: Prof. **Xiaowei Zhou** and Prof. **Sida Peng**
 - I collaborated with Yi Jiang and focus on building interactive 3D environment with foundation world model.

SELECTED COURSE PROJECTS

- **Amsterdam slalom car race game**
 - Designed a car racing game with free driving and race scoring.
 - Supported collision detection and real-time shadows.
- **Large scale scene reconstruction**
 - Completed camera localization, depth estimation and semantic segmentation based on aerial data of Mengminwei building in Zhejiang University.

SELECTED AWARDS AND HONORS

National Scholarship	<i>2019 – 2020</i>
Zhejiang University Scholarship - First Prize	<i>2019 – 2020</i>
National College Student Mathematics Contest - First Prize	<i>2020</i>
Zhejiang University Physics Innovation Competition - First Prize	<i>2019</i>

ACADEMIC SERVICE

Conference Reviewer: CVPR, SIGGRAPH Asia

SKILLS AND OTHER INFORMATION

Programming Skills:	Python, C/C++, CUDA, Java, JavaScript, Verilog, SQL
Vision & Graphics Skills:	OpenCV, OpenGL, Open3D, MeshLab, COLMAP, Blender
Machine Learning Skills:	PyTorch, NumPy, TensorFlow, Google JAX
Language Skills:	Chinese (Native), English (TOEFL: 100, CET6: 620)