LIAO WANG

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INTRODUCTION

I received my Bachelor of Computer Science and Technology at ShanghaiTech University. Now I am the Ph.D. candidate at ShanghaiTech University where I am advised by Prof. Jingyi Yu and Prof. Lan Xu. I am passionate about exploring novel ideas and implement them. My research interest lies in 3d reconstruction and computer graphics, including neural rendering, dynamic scene reconstructing. Recently, I am focused on using neural radiance field based methods to perform fast dynamic scene reconstruction.

EDUCATION

ShanghaiTech University *2020 - Present*
Ph.D. Candidate, Major in Computer Graphics
Advisor: Professor Jingyi Yu, Professor Lan Xu
GPA 3.57/4.0

University of California, Berkeley *2018.7 - 2018.8*
Summer Session
GPA 4.0/4.0

ShanghaiTech University *2016-2020*
Bachelor, Major in Computer Science
GPA 3.56/4.0

EXPERIENCE

Meta Intern *2022.8.15 - 2023.1.27*

Teaching Assistant of Deep Learning

· Shared responsibility for recitations, coursework and project consulting.

PUBLICATIONS

- Neural Residual Radiance Fields for Streamably Free-Viewpoint Videos.
  Liao Wang, Qiang Hu, Qihan He, Ziyu Wang, Jingyi Yu, Tinne Tuytelaars, Lan Xu, Minye Wu
  (CVPR 2023) [Project | Paper]
- Human Performance Modeling and Rendering via Neural Animated Mesh.
  Fuqiang Zhao, Yuheng Jiang, Kaixin Yao, Jiakai Zhang, **Liao Wang**, Haizhao Dai, Yuhui Zhong, Yingliang Zhang, Minye Wu, Lan Xu, Jingyi Yu
  (Siggraph Aisa 2022) [Project | Paper]
- Fourier PlenOctrees for Dynamic Radiance Field Rendering in Real-time.
  Liao Wang, Jiakai Zhang, Xinhang Liu, Fuqiang Zhao, Yanshun Zhang, Yingliang Zhang, Minye Wu, Jingyi Yu, Lan Xu
  (CVPR 2022 Oral) [Project | Paper]
- iButter: Neural Interactive Bullet Time Generator for Human Free-viewpoint Rendering.
  Liao Wang, Ziyu Wang, Pei Lin, Yuheng Jiang, Xin Suo, Minye Wu, Lan Xu, Jingyi Yu
  (ACM MM 2021 Oral) ACM Multimedia [Project | Paper]
- MirrorNeRF: One-shot Neural Portrait Radiance Field from Multi-mirror Catadioptric Imaging.
  Ziyu Wang, **Liao Wang**, Fuqiang Zhao, Minye Wu, Lan Xu, Jingyi Yu
  (ICCP 2021) International Conference on Computational Photography [Paper]

- Neural Opacity Point Cloud.
  Cen Wang, Minye Wu, Ziyu Wang, **Liao Wang** , Hao Sheng, Jingyi Yu
  (TPAMI 2020)IEEE Transactions on Pattern Analysis and Machine Intelligence [**Project** | **Paper**]

PROJECTS

Rendering radiance field on Looking Glass in Real-time

Built up a Looking Glass Radiance Field Viewer. It enables an immersive and interactive viewing experience for the neural radiance field on the light field displays.

Neural Reflectance Fields for Appearance Acquisition ++

Reproduce Neural Reflectance Fields for Appearance Acquisition and improve its results.

3D Human Reconstruction using a Dome System

Using more than 60 cameras to construct a dome system for multi-view stereo reconstruction. My work focuses on 3D human modeling and rendering.

AWARDS

National Undergraduate Mathematical Modeling Competition Undergraduate Group 2nd Prize *2018.10*
National College Students Mathematical Modeling Competition Shanghai Division Undergraduate Group 1st Prize *2018.10*
Shanghaitech University Excellent Student title *2018*
Shanghaitech University Excellent Scholarship *2017*
Shanghai International Geek Competition Hard Technology · Creating Future Vehicle Network Smart Application Darkhorse Competition 3rd Prize *2018.10*

TECHNICAL SKILLS

Programming Languages	Python (Pytorch), C, C++ (CUDA)
Softwares & Tools	Visual Studio, Pycharm, Jupyter Notebook, Android Studio Matlab, Agisoft, RealityCapture Adobe Photoshop, Premiere
Others	Latex, Markdown