

# LIAO WANG

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## INTRODUCTION

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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 implementing them. My research interest lies in 3d reconstruction and computer graphics, including neural rendering, and dynamic scene reconstruction. Recently, I am focused on using neural radiance field based methods to perform efficient dynamic scene reconstruction.

## EDUCATION

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### 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

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### Meta Intern

2022.9.19 - 2023.3.3

### Teaching Assistant of Deep Learning

- Shared responsibility for recitations, coursework and project consulting.

## PUBLICATIONS

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- VideoRF: Rendering Dynamic Radiance Fields as 2D Feature Video Streams  
**Liao Wang**, Kaixin Yao, Chengcheng Guo Zhirui Zhang, Qiang Hu, Jingyi Yu, Lan Xu, Minye Wu  
(CVPR 2024) [[Project](#) | [Paper](#)]
- 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

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### 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

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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

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