# 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

- 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

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|---|---|
| **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 |