

Ziyue Feng

Homepage: <https://ziyue.cool/>

Google Scholar: [Link](#)

Github: <https://github.com/fengziyue>

Linkedin: <https://www.linkedin.com/in/ziyue-feng/>

Email : zfeng@clemsun.edu

Mobile : +1 (864)-887-8416

Research Interests

My research interests include **3D Computer Vision, Depth Prediction, and 3D Reconstruction**. I love the research topics that impact practical applications, like autonomous driving, AR/VR, and robotics.

Education

- **Clemson University** SC, USA
PhD in Computer Vision *Aug 2019 - Present*
- **Xi'an Jiaotong University** Xi'an, China
Bachelor of Computer Science; *Aug 2015 - Jun 2019*

Selected Publications

- **Ziyue Feng**, Huangying Zhan, etc.. "NARUTO: Neural Active Reconstruction from Uncertain Target Observations", (Active NeRF style 3D Reconstruction. **CVPR 2024**.)
- **Ziyue Feng**, Leon Yang, Pengsheng Guo, Bing Li. "CVRecon: Rethinking 3D Geometric Feature Learning for Neural Reconstruction" (Proposed a novel 3D geometric feature learning paradigm for neural reconstruction based on improved cost volumes. **ICCV 2023**.)
- **Ziyue Feng**, Liang Yang, Longlong Jing, Haiyan Wang, YingLi Tian, and Bing Li. "Disentangling Object Motion and Occlusion for Unsupervised Multi-frame Monocular Depth", **ECCV 2022** (2/3 of reviews are **strong accept**).
- **Ziyue Feng**, Longlong Jing, Peng Yin, Yingli Tian, Bing Li. "Advancing Self-supervised Monocular Depth Learning with Sparse LiDAR", **CoRL 2021**.
- **Ziyue Feng**, Shitao Chen, Yu Chen, Nanning Zheng. "Model-based decision making with imagination for autonomous parking", **IEEE IV 2018**.

Experience & Selected Research Projects

- **NVIDIA Research** Santa Clara, CA
Research Intern in Learning and Perception Group. *Spring 2024*
 - **3D Computer Vision**: Will join [Orazio Gallo](#)'s group as a research intern, work with [Hang Su](#) and [Abhishek Badki](#) in 3D Computer Vision.
- **Google Research Intern** San Francisco, CA
Research Intern in Project Starline. *Sep 2023 - Present*
 - **Project Starline**: Working with [Clément Godard](#) and Lynn Tsai on Google [Project Starline](#) in the field of 3D Computer Vision.
- **OPPO US Research Center** Palo Alto, CA
Research Intern focused on Active Neural SLAM. Mentor: Dr. Huangying Zhan. *Jun 2023 - Sep 2023*
 - **Active NeRF-based SLAM**: Worked with [Huangying Zhan](#) to enable embodied intelligent agents to automatically explore, localize, reconstruct, and plan in unknown environments. Published on **CVPR 2024**.
- **Clemson University** Greenville, SC
Research Assistant focused on 3D Computer Vision. Advisor: Dr. Bing Li. *Aug 2019 - Jun 2023*
 - **CVRecon Link**: Worked with [Eric Yang](#) at Apple to propose a novel 3D geometric feature learning paradigm for neural reconstruction based on improved cost volumes. Published on **ICCV 2023**.
 - **Dynamic Depth Link**: Worked with [Eric Yang](#) at Apple to propose a self-supervised multi-frame monocular depth prediction model dedicated to solving the dynamic objects' motion and occlusion problems. Achieves State-of-the-Art performance on the KITTI and Cityscapes dataset, especially in dynamic object areas. Published on **ECCV 2022**.

- **Fusion Depth Link:** Worked with [Longlong Jing](#) at Waymo to leverage the sparse LiDAR to improve the self-supervised monocular depth prediction accuracy. Reduced half of the depth error with a 4-beam LiDAR, obtained SOTA performance on the KITTI 'Depth Prediction', 'Depth Completion', and the 'Monocular 3D Detection' tasks. Published on **CoRL 2021**.

- **MEGVII(Face++) Research**

Research Intern, Mentor: Donghao Liu.

Jan 2019 - May 2019

- **Gaze Estimation:** We designed a GAN (Generative Adversarial Network) model to alleviate the domain shift of the gaze images from different persons, improving the gaze estimation accuracy for the driver monitoring system.

- **Institute of Artificial Intelligence and Robotics (IAIR at XJTU)**

Research Intern, Advisor: Prof. Nanning Zheng.

Xi'an, China

Oct 2016 - Jan 2019

- **Autonomous Parking:** [Link](#) Proposed an 'imaginative' module to improve the RRT-based parking path planning and a kinematic-aware smoothing module to refine the planned path. Published on IEEE IV 2018.

Services

- Reviewer for CVPR 2024, NeurIPS 2023, IEEE TIP, CoRL 2022&2023, IROS 2023, RA-L 2023, ICAS 2023, Journal of Robotics, and IEEE Access.

Technical Skills

- **Programming:** Python, C/C++, Linux/Unix, CUDA
- **Language:** Mandarin, English