

Yingshuang Zou

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EDUCATION

Tsinghua University - *Tsinghua Shenzhen International Graduate School*

Aug.2022 - Present

- M.E. in Electronic and Information Engineering (Artificial Intelligence)
- Advisor: Prof. Haoqian Wang
- GPA: 3.94 / 4.0
- Research interests: 3D Scene Reconstruction and Perception; 3D Gaussian Splatting; Depth Estimation

Northwestern Polytechnical University - *School of Software*

Sept.2018 - Jun.2022

- B.E. in Software Engineering
- GPA: 89.42 / 100.0
- Main Courses: Probability Theory, Digital image processing, Data Structures and Algorithm Analysis

PUBLICATIONS

M²Depth: Self-supervised Two-Frame Multi-camera Metric Depth Estimation

2024

Yingshuang Zou*, Yikang Ding*, Xi Qiu, Minglei Lu, Haoqian Wang, Haotian Zhang

European Conference on Computer Vision (ECCV 2024, Oral) [[Website](#)]

TranSplat: Generalizable 3D Gaussian Splatting from Sparse Multi-View Images with Transformers

2024

Chuanrui Zhang*, **Yingshuang Zou***, Zhuoling Li, Minmin Yi, Haoqian Wang

ArXiv preprint arXiv: 2408.13770 [[Website](#)]

3D Face Arbitrary Style Transfer

2023

Xiangwen Deng, **Yingshuang Zou**, Yuanhao Cai, Chendong Zhao, Yang Liu, Zhifang Liu, Yuxiao Liu, Jiawei Zhou, Haoqian Wang

ArXiv preprint arXiv: 2303.07709 [[Website](#)]

PROFESSIONAL EXPERIENCES

Self-Supervised Multi-camera Depth Estimation - *Megvii Technology*

June. 2023 - Dec. 2023

- Construct spatial-temporal 3D cost volumes and design a spatial-temporal fusion module for surrounding depth estimation, which strengthens the depth accuracy by fusing the spatial-temporal information;
- Introduce the SAM prior into the depth estimation task and propose a multi-grained feature fusion module to integrate SAM features with internal features for enhancing the depth quality in detail.

Gaussian Splatting for Dynamic Driving Scenes - *Megvii Technology*

Dec. 2023 - May 2024

- Design a novel scene representation for modeling complex dynamic street scene, which efficiently reconstructs and renders high-fidelity "dynamic urban scenes" in real-time; Enhance both visual and geometric quality by jointly optimizing appearance, depth, semantics, and optical flow.
- Reconstruct the scene using the six images from the driving scenes for the task of novel view synthesis.

ICRA Robomaster AI Challenge - *Northwestern Polytechnical University*

Dec. 2019 - June 2021

- Design a simulation platform based on Gazebo for sensors information and robot navigation simulation; design perception and planning strategies for robotics and conducts hands-on debugging with the actual robots.
- Served as the team leader, maintaining the project and achieving 6th place among 72 teams.

HONORS AND AWARDS

- **Nation Scholarship** 2021
- Scholarship, Tsinghua University 2023
- Outstanding Graduates 2022
- First Class Scholarship, Northwestern Polytechnical University 2019, 2020, 2021

SKILLS

- **Programming:** Python, C++/C, CUDA, Matlab, LaTeX
- **Programming Frameworks:** Pytorch, Scikit-Learn, ROS, Docker
- **Languages:** English, Chinese