

JIAN LIU

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EDUCATION

Harbin Institute of Technology, Harbin, China 2022.09 – 2025.03

- Computer Science Major, advised by Prof. Xianming Liu
- Working towards a Master Degree
- GPA: 91.69 (rank 3)

Harbin Institute of Technology, Harbin, China 2018.09 – 2022.06

- Software Engineer Major, Faculty of Computing
- Bachelor Degree with Outstanding Graduates
- GPA: 93.57 (rank 2)

PUBLICATIONS

- *AFBench: A Large-scale Benchmark for Airfoil Design*
Jian Liu, Jianyu Wu, Hairun Xie, Guoqing Zhang, Jing Wang, Wei Liu, Wanli Ouyang, Junjun Jiang, Xianming Liu, Shixiang Tang, Miao Zhang.
Submitted to NeurIPS 2024.
[Arxiv](#) [Github](#) [Project Page](#)
- *A Comprehensive Survey on 3D Content Generation*
Jian Liu, Xiaoshui Huang, Tianyu Huang, Lu Chen, Yuenan Hou, Shixiang Tang, Ziwei Liu, Wanli Ouyang, Wangmeng Zuo, Junjun Jiang, Xianming Liu.
Ready for submission to ACM Computing Surveys.
[Arxiv](#) [Github](#)
- *Stealing Stable Diffusion Prior for Robust Monocular Depth Estimation*
Yifan Mao, **Jian Liu**(equal contribution), Xianming Liu.
Ready for submission to ICRA.
[Arxiv](#) [Github](#) [Project Page](#)
- *REPS: Reconstruction-based Point Cloud Sampling*
Guoqing Zhang, Wenbo Zhao, **Jian Liu**(project leader), Xianming Liu.
Submitted to ECCV 2024.
[Arxiv](#) [Github](#)
- *OccTransformer: Improving BEVFormer for 3D camera-only occupancy prediction*
Jian Liu, Sipeng Zhang, Chuixin Kong, Wenyan Zhang, Yuhang Wu, Yikang Ding, Borun Xu, Ruibo Ming, Donglai Wei, Xianming Liu.
CVPR23 Autonomous Driving Challenge, 3D Occupancy Prediction Track.
[Arxiv](#) [Talk](#)
- *DINO-SD: Champion Solution for ICRA 2024 RoboDepth Challenge*
Yifan Mao, Ming Li, **Jian Liu**(equal contribution), Zihan Qin, Jiayang Liu, Jialei Xu, Cunxi Chu, Wenbo Zhao, Junjun Jiang, Xianming Liu.
ICRA24 RoboDrive Challenge, Depth Estimation Track.
[Arxiv](#) [Talk](#)

INTERNSHIPS

Shanghai AI Lab, AI4Science Group

Supervised by Shixiang Tang, Wanli Ouyang

Research Intern in 3D design. 2023.09–2024.07

- Gained insights into 3D content generation by running models such as Zero-123, SyncDreamer, MVDream, and Wonder3D for multi-view diffusion, and SceneTex for texture generation projects. Completed a survey titled "A Comprehensive Survey on 3D Content Generation," ready for submission to ACM Computing Surveys.

- Conducted research on intelligent manufacturing, starting from scratch to investigate airfoil design. Completed the manufacturing of airfoil data and established a baseline for airfoil generation and editing. Authored a paper, AFBench: A Large-scale Benchmark for Airfoil Design, with results submitted to NeurIPS 2024.

MEGVII, AIC Group and TF Group

Supervised by Zhewei Huang Shuchang Zhou

Research Intern. 2022.05–2023.08

- Conducted research on RGB and depth fusion for depth completion, achieving **1st** place in RGB+TOF Depth Completion at the MIPI Challenge 2022, validation leaderboard, **ECCV 2022** Workshop
- Conducted research on domain adaptation for semantic segmentation, achieving **4th** place in VisDA-2022, test leaderboard, **NIPS 2022** Workshop
- Conducted research on 3D occupancy prediction, achieving the **Innovation Award** in 3D Occupancy Prediction at the Autonomous Driving Challenge, **CVPR 2023** Workshop

Alibaba, Local Services Group

Supervised by Zhengyu Meng

Software Dev Engineer Intern. 2021.08–2021.10

- Completed a project on real-time/offline tag integration. Through this internship, I gained insights into Alibaba's product selection data pipeline and the use of multiple platforms, which led to an offer for a full-time position.

HONORS

Outstanding Graduate of Harbin Institute of Technology, 2022

China **National** Scholarship, 2021

First-Class Scholarship at Harbin Institute of Technology, 2019, 2020, and 2021

First Prize in the Mathematics Competition for Chinese College Students, 2019

SKILLS

- Programming Language: Python, JAVA, C++
- Other Tools & Framework: PyTorch, docker, conda, git, L^AT_EX