Lihe Ding

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The Chinese University of Hong Kong, Hong Kong

EXPERIENCE

- **Research Intern in SenseTime, Metaverse Video R&D**
  Text-to-3D Generation using both 2D and 3D Foundation Models. (Supervised by Prof. Tianfan Xue & Dr. Zhanpeng Huang)
  May 2023 to September 2023
- **Research Assistant in 3DVICI Lab at Tsinghua University**
  Unsupervised single view 3D reconstruction with NeRF, 3D Diffusion Model. (Supervised by Prof. Li Yi)
  May 2022 to April 2023
- **Internship in Qcraft (self-driving startup)**
  3D detection on Point Clouds (RD Perception).
  June 2021 to May 2022
- **Summer Exchange in MIT**
  Complete the on-campus course of Machine Learning and Artificial Intelligence (MIT EECS).
  July 2019 to August 2019

EDUCATION

- **Ph.D. Multimedia Lab**
  The Chinese University of Hong Kong, supervised by Prof. Tianfan Xue
  August 2023 to Now
- **M.S. Optical Imaging Detection and Recognition Laboratory**
  Beijing Institute of Technology
  September 2020 to July 2023
- **B.S. Optoelectronic information science and Engineering, GPA: *90.2/100*, Ranking: *8/161***
  Beijing Institute of Technology
  August 2016 to July 2020

Research Interests

3D Generation, Diffusion Models, NeRF, Point Clouds

PUBLICATIONS

- **Text-to-3D Generation with Bidirectional Diffusion using both 2D and 3D priors (CVPR24)**
  Lihe Ding, *Shaocong Dong, Zhanpeng Huang, Zibin Wang, Yiyuan Zhang, Kaixiong Gong, Dan Xu, Tianfan Xue.*
- **Interactive3D: Create What You Want by Interactive 3D Generation (CVPR24)**
  Shaocong Dong, ***Lihe Ding****, Zhanpeng Huang, Zibin Wang, Tianfan Xue, Dan Xu.*
- **FH-Net: A Fast Hierarchical Network for Scene Flow Estimation on Real-world Point Clouds (ECCV22 *Oral, 2.7 %*)**
  Lihe Ding*, Shaocong Dong*, Tingfa Xu, Xinli Xu, Jie Wang, Jianan Li.*
- **CAGroup3D: Class-Aware Grouping for 3D Object Detection on Point Clouds (NeurIPS22)**
  Haiyang Wang, **Lihe Ding***, Shaocong Dong, Shaoshuai Shi, Aoxue Li, Jianan Li, Zhenguo Li, Liwei Wang.*
- **MsSVT: Mixed-scale Sparse Voxel Transformer for 3D Object Detection on Point Clouds (NeurIPS22)**
  Shaocong Dong, **Lihe Ding***, Haiyang Wang, Tingfa Xu, Xinli Xu, Jie Wang, Ziyang Bian, Ying Wang, Jianan Li.*
- **Sample-adaptive Augmentation for Point Cloud Recognition Against Real-world Corruptions (ICCV23)**
  Jie Wang, ***Lihe Ding****, Tingfa Xu, Shaocong Dong, Xinli Xu, Peifu Liu, Jianan Li.*

AWARDS & RECOGNITION

- **Xu Teli Scholarship**
  The highest scholarship of BIT (President Scholarship).
  2020
- **First prize of National Undergraduate optoelectronic Design Competition**
  2018