Lihe Ding

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Education

Ph.D. Multimedia Lab, The Chinese University of Hong Kong   **2023 – present**
Supervisor: Prof. Tianfan Xue

M.S. Optical Imaging Detection and Recognition Laboratory, Beijing Institute of Technology   **2020 – 2023**
Supervisor: Prof. Jianan Li

B.S. Optoelectronic information science and Engineering, Beijing Institute of Technology   **2016 – 2020**
GPA: 90.2/100, Rank: 8/161

Experience

SenseTime, Metaverse Video R&D   *Research intern*   **May 2023 – September 2023**
- Text-to-3D Generation using both 2D and 3D Foundation Models.
- Supervised by Prof. Tianfan Xue & Dr. Zhanpeng Huang

Tsinghua University, 3DVICI Lab   *Research Assistant*   **May 2022 – April 2023**
- Unsupervised single view 3D reconstruction with NeRF, 3D Diffusion Model.
- Supervised by Prof. Li Yi

Qcraft, R&D Perception   *Research Intern*   **June 2021 – May 2022**
- 3D detection on Point Clouds

Selected 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**)
  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.

- MsSVT++: Mixed-Scale Sparse Voxel Transformer ith Center Voting for 3D Object Detection (**TPAMI**)
  Jianan Li, Shaocong Dong, **Lihe Ding**, Tingfa Xu.

- 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

Xu Teli Scholarship   President Scholarship of Beijing Institute of Technology   **2020**

First prize of National Undergraduate optoelectronic Design Competition   **2018**

Teaching Assistant

- [IERG-4160] Image and Video Processing (Lecturer: Prof. Tianfan Xue)

- [IERG-2051] Signals and Systems (Lecturer: Prof. LOK Tat Ming)

Service

Reviewer: ICLR25, ECCV24, CVPR24, ICML24, ICLR24, NeurIPS23, ICCV23, CVPR23, WACV23