RESUME OF HAOLIN LIU

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EDUCATION

The Chinese University of Hong Kong (Shenzhen) *Sept 2019 - Present*
Ph.D. student in Computer and Information Engineering
Supervisors: Prof. Xiaoguang Han
Research Interests: Indoor Scene Understanding and Reconstruction

The Chinese University of Hong Kong (Shenzhen) *Sept 2015 - Jun 2019*
B. E. in Electronic Information Engineering
Top 5 among peers
Awards: Dean's list (Excellent academic performance) for three years from 2016 to 2019.

WORKING EXPERIENCE

Tencent AI Lab*Jan 2024 - Now*
Internship in 3D AIGC

TEACHING EXPERIENCE

CSC 4005 Distributed Parallel Programming *July 2019 - June 2021*
Teaching Assistant
EIE 3810 Microprocessor Laboratory *July 2021 - Present*
Teaching Assistant
Award: Best TA award, (3 out of 200)

PROJECT EXPERIENCE

Human Dance video generation: *Aug 2019 - June 2020*
Research on generating human dance video given a single human photo as input.
Paper accepted by ACM MM 2020

3D Visual Grounding: *June 2020 - March 2021*
Research on 3D Visual Grounding on RGB-D Images.
Paper accepted by CVPR 2021

Single-view Indoor Scene Reconstruction *June 2021 - Dec 2022*
Research of reconstructing objects in a single-view RGB image of an indoor scene.
Paper accepted by ECCV 2022

Large-scale 3D Pretraining: *June 2021 - Dec 2022*
Use MVImgNet to pre-train object classification, then apply it to downstream tasks such as

in-the-wild classification and object detection.
Paper accepted by CVPR 2023
Awards: Chinagraph open-source graphics award

Robust Real-scene Reconstruction: *March 2023 - Dec 2023*
Design a novel latent triplane diffusion Model for robust in-the-wild indoor object reconstruction given multi-view images as inputs.
Paper accepted by CVPR 2024.

Real Image-to-3D: *March 2024 - May 2024*
Training and reproducing several large 3D reconstruction models (LRM, LGM, TriplaneMeet-Gaussian) on MVImgNet 2.0 to improve performance on real input images.
Paper submitted to Siggraph Asia 2024.

Single-view topology-consistent Garment reconstruction : *March 2024 - May 2024*
Develop an algorithm based on implicit reconstruction and NICP to reconstruct garments with nice topology.
Paper submitted to Siggraph Asia 2024.

PUBLICATIONS

***LASA*: Instance Reconstruction from Real Scans using A Large-scale Aligned Shape Annotation Dataset**
Haolin Liu, Chongjie Ye, Yinyu Nie, Yingfan He, Xiaoguang Han
(CVPR), 2024.

towards high-fidelity single-view holistic reconstruction of indoor scenes
Haolin Liu, Yujian Zheng, Guanying Chen, Shuguang Cui, Xiaoguang Han
(ECCV), 2022.

***Refer-it-in-RGBD*: A Bottom-up Approach for 3D Visual Grounding in RGBD Images**
Haolin Liu, Anran Lin, Xiaoguang Han, Lei Yang, Yizhou Yu, Shuguang Cui
(CVPR), 2021.

***MVImgNet*: A Large-scale Dataset of Multi-view Images**
Xianggang Yu*, Mutian Xu*, Yidan Zhang*, **Haolin Liu***, Chongjie Ye*,Yushuang Wu, Zizheng Yan, Chenming Zhu, Zhangyang Xiong, Tianyou Liang, Guanying Chen, Shuguang Cui, Xiaoguang Han
(CVPR), 2023.

***JAFPro*: Joint Appearance Fusion and Propagation for Human Video Motion Transfer from Multiple Reference Images**
Xianggang Yu*, **Haolin Liu***, Xiaoguang Han, Zhen Li, Zixiang Xiong Shuguang Cui
(ACM MM), 2020.

TO-Scene: A Large-scale Dataset for Understanding 3D Tabletop Scenes
Mutian Xu, Yidan Zhang, **Haolin Liu**, Xiaoguang Han

(ECCV) 2022.
*indicates co-first author

SKILLS

Programming Languages	Python, C/C++, MATLAB, R, Bash
Libraries/Packages	PyTorch, TensorFlow, OpenCV, Open3D, CUDA
Software & Tools	Blender, LaTeX, HTML, SQL
Hardware	Embedded System, VHDL, FPGA
English	TOEFL 104, GRE 325