

Address

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 Homepage: <https://hbb1.github.io>

Education

The University of Hong Kong	Hong Kong, China
Ph.D Student in Department of Computer Science	Sep. 2024 - Present
ShanghaiTech University	Shanghai, China
M.Phi / Ph.D Student in Computer Science	Sep. 2020 - Jul. 2024
South China University of Technology	Guangzhou, China
B.Eng in Software Engineering	Sep. 2016 - Jul. 2020

Research Interests

3D Vision & Graphics, 3D-aware Generative Models, Vision Language Models

Publications

- [1] **CUPID: Pose-Grounded Generative 3D Reconstruction from a Single Image**
 Binbin Huang*, Haobin Duan*, Yiqun Zhao, Zibo Zhao, Yi Ma, Shenghua Gao
arxiv.2510.20776, 2025 (* equal contribution)
- [2] **Surfel-based Gaussian Inverse Rendering for Fast and Relightable Dynamic Human Reconstruction from Monocular Video**
 Yiqun Zhao, Chenming Wu, Binbin Huang, Yihao Zhi, Chen Zhao, Jingdong Wang, Shenghua Gao
TPAMI 2025
- [3] **Quadratic Gaussian Splatting: High Quality Surface Reconstruction with Second-order Geometric Primitives**
 Ziyu Zhang*, Binbin Huang*, Hanqing Jiang, Liyang Zhou, Xiaojun Xiang, Shunhan Shen
ICCV 2025 (* equal contribution)
- [4] **GenFusion: Closing the Loop between Reconstruction and Generation via Videos**
 Sibow Wu, Congrong Xu, Binbin Huang, Andreas Geiger, Anpei Chen
CVPR 2025
- [5] **2D Gaussian Splatting for Geometrically Accurate Radiance Fields**
 Binbin Huang, Zehao Yu, Anpei Chen, Andreas Geiger, Shenghua Gao
SIGGRAPH 2024 🏆 (Most Influential Papers #1)
- [6] **Mip-Splatting: Alias-free 3D Gaussian Splatting**
 Zehao Yu, Anpei Chen, Binbin Huang, Torsten Sattler, Andreas Geiger
CVPR 2024 🏆 (Oral, Best Student Paper)
- [7] **GeoFormer: Learning Point Cloud Completion with Tri-Plane Integrated Transformer**
 Jinpeng Yu, Binbin Huang, Yuxuan Zhang, Huaxia Li, Xu Tang, Shenghua Gao
ACM'MM 2024
- [8] **Heromaker: Human-centric Video Editing with Motion Priors**
 Shiyu Liu, Zibo Zhao, Yihao Zhi, Yiqun Zhao, Binbin Huang, Shuo Wang, Ruoyu Wang, Michael Xuan, Zhengxin Li, Shenghua Gao
ACM'MM 2024 (Oral)
- [9] **3D-aware Image Generation using 2D Diffusion Models**
 Jianfeng Xiang, Jiaolong Yang, Binbin Huang, Xin Tong
ICCV 2023

- [10] **Omni-Line-of-Sight for Holistic Shape Reconstruction**
Binbin Huang*, Xinyue Peng*, Siyuan Shen, Suan Xia, Ruiqian Li, Yanhua Yu, Yuehan Wang, Shenghua Gao, Wen-zheng Chen, Shiyang Li, Jingyi Yu
arXiv:2304.10780, 2023. (* equal contribution)
- [11] **PREF: Phasorial Embedding Fields for Compact Neural Representations**
Binbin Huang, Xinhao Yan, Anpei Chen, Shenghua Gao, Jingyi Yu
arXiv:2304.10780, 2022
- [12] **Look Before You Leap: Learning Landmark Features for One-Stage Visual Grounding**
Binbin Huang, Dongze Lian, Weixin Luo, Shenghua Gao
CVPR 2021

Internship Experience

Microsoft Research Asia

Research Intern with *Internet Graphics Group*

Beijing, China

Aug. 2022 – May. 2023

- Mentor: **Jiaolong Yang** and **Xin Tong**
- Topic: 3D generation using 2D diffusion models

Honors & Awards

2024	Best Student Paper Award (Top winners among 11,500 submissions)	CVPR'24
2023	National Scholarship (Top 10 M.Phil students in SIST, ShanghaiTech)	ShanghaiTech
2021	Outstanding Teaching Assistant (For outstanding teaching support in CS172)	ShanghaiTech
2019	National Scholarship (Top 2% undergraduates)	SCUT
2018	National Scholarship (Top 2% undergraduates)	SCUT
2017	National Encouragement Scholarship (Top 5% undergraduates)	SCUT

Teaching Experience

Teaching Assistant	The University of Hong Kong	Hong Kong SAR, China
	COMP3270 Artificial Intelligence	Spring 2024
Teaching Assistant	ShanghaiTech University	Shanghai, China
	CS172 Computer Vision I	Fall 2021
Teaching Assistant	ShanghaiTech University	Shanghai, China
	CS172 Computer Vision I	Fall 2020

Academic Services

Computer Graphics (CG) Reviewer: SIGGRAPH, SIGGRAPH Asia, TVCG
Computer Vision (CV) Reviewer: CVPR, ICCV, ECCV, NeurIPS, ICLR, TPAMI, TOMM, TCSVT

References

Shenghua Gao (PhD Advisor)
The University of Hong Kong
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