

EDUCATION

The Chinese University of Hong Kong

Ph.D. in Information Engineering (MMLab)

- Advisor: Prof. Bolei Zhou and Dahua Lin

Hong Kong SAR, China

2021 - 2025 (*expected*)

Zhejiang University

B.E. in Computer Science in Chu KoChen Honors College

- GPA: 3.95/4.00, Rank: 1/19

Hangzhou, China

2017 - 2021

RESEARCH INTERESTS

I am interested in computer vision and generative modeling across various modalities, including image, video, 3D, and 4D data. My current research focuses on training foundation models for 3D and video generation.

PUBLICATIONS

1. **Qihang Zhang**, Shuangfei Zhai, Miguel Angel Bautista Martin, Kevin Miao, Alexander Toshev, Josh Susskind, Jiatao Gu. World-consistent Diffusion Models with Explicit 3D Modeling. (*CVPR 2025, Highlight*)
2. Kevin Miao, Harsh Agrawal, **Qihang Zhang**, Federico Semeraro, Marco Cavallo, Jiatao Gu, Alexander Toshev. DSplats: 3D Generation by Denoising Splats-Based Multiview Diffusion Models. (*in submission*)
3. Junge Zhang, **Qihang Zhang**, Li Zhang, Ramana Kompella, Gaowen Liu, Bolei Zhou. UrbanScenarioGen: infinite Urban Scenario Generation through Occupancy Map. (*in submission*)
4. **Qihang Zhang**, Yinghao Xu, Chaoyang Wang, Hsin-Ying Lee, Gordon Wetzstein, Bolei Zhou, Ceyuan Yang. 3DitScene: Editing Any Scene via Language-guided Disentangled Gaussian Splatting. (*ICLR 2025*)
5. Jiatao Gu, Yuyang Wang, Yizhe Zhang, **Qihang Zhang**, Dinghuai Zhang, Navdeep Jaitly, Josh Susskind, Shuangfei Zhai. De-noising Auto-regressive Transformers for Scalable Image Generation. (*ICLR 2025*)
6. **Qihang Zhang**, Chaoyang Wang, Aliaksandr Siarohin, Peiye Zhuang, Yinghao Xu, Ceyuan Yang, Dahua Lin, Bolei Zhou, Sergey Tulyakov, Hsin-Ying Lee. Towards Text-guided 3D Scene Composition. (*CVPR 2024*)
7. **Qihang Zhang**, Yinghao Xu, Yujun Shen, Bo Dai, Bolei Zhou, Ceyuan Yang. BerfScene: Bev-Conditioned Equivariant Radiance Fields for Infinite 3D Scene Generation. (*CVPR 2024*)
8. Ceyuan Yang, **Qihang Zhang**, Yinghao Xu, Jiapeng Zhu, Yujun Shen, Bo Dai. Learning Modulated Transformation in GANs. (*NeurIPS 2023*)
9. Jihao Liu, Tai Wang, Boxiao Liu, **Qihang Zhang**, Yu Liu, Hongsheng Li. Towards Better 3D Knowledge Transfer via Masked Image Modeling for Multi-view 3D Understanding. (*ICCV 2023*)
10. **Qihang Zhang**, Ceyuan Yang, Yujun Shen, Yinghao Xu, Bolei Zhou. Towards Smooth Video Composition. (*ICLR 2023*)
11. Guanglin Li, Zhichao Ye, Yifeng Li, **Qihang Zhang**, Tao Kong, Zhaopeng Cui, Guofeng Zhang. Generative Category-Level Shape and Pose Estimation with Semantic Primitives. (*CoRL 2022*)
12. **Qihang Zhang**, Zhenghao Peng, Bolei Zhou. Learn to Drive by Watching YouTube Videos: Action-Conditioned Contrastive Policy Pretraining. (*ECCV 2022*)

13. Quanyi Li*, Zhenghao Peng*, Lan Feng, **Qihang Zhang**, Zhenghai Xue, Bolei Zhou. MetaDrive: Composing Diverse Driving Scenarios for Generalizable Reinforcement Learning. (*IEEE TPAMI* 2022)
14. Lan Feng* , **Qihang Zhang*** , Yicheng Liu, Fan Li, Gang Sun, Chunxiao Liu, and Bolei Zhou. IP-MMT: Interaction Prediction via MultiModal Transformer. (*Waymo Open Dataset Challenge* 2021)
15. Quanyi Li*, Zhenghao Peng*, **Qihang Zhang**, Chunxiao Liu, Bolei Zhou. Improving the Generalization of End-to-End Driving through Procedural Generation. (*CVPR Workshop* 2021)
16. Xintian Wu, **Qihang Zhang**, Yiming Wu, Huanyu Wang, Songyuan Li, Lingyun Sun, Xi Li. F3A-GAN: Facial Flow for Face Animation with Generative Adversarial Networks. (*IEEE TIP* 2021)

EXPERIENCE

Stanford Computational Imaging Lab Palo Alto, America	2025.01 - 2025.06
• Visiting Research Scholar. Supervisor: Gordon Wetzstein • Topic: Multi-modal foundation model	
Machine Learning Research, Apple Inc. New York, America	2024.05 - 2024.09
• Research Intern. Supervisor: Jiatao Gu • Topic: Video and 3D foundation model	
Creative Vision, Snap Inc. Los Angeles, America	2023.06 - 2023.10
• Research Intern. Supervisor: Hsin-Ying Lee and Sergey Tulyakov • Topic: Text-to-3D generation	
Shanghai Artificial Intelligence Laboratory Shanghai, China	2022.09 - 2023.05
• Research Intern. Supervisor: Ceyuan Yang and Bo Dai • Topic: Video generation, infinite scale 3D scene generation	
Multimedia Lab, CUHK Hong Kong SAR, China	2021.09 - 2025.07
• Research Assistant. Supervisor: Bolei Zhou • Topic: Pretraining for visuomotor policy learning	
Autonomous Driving, SenseTime Inc. Shenzhen, China	2020.09 - 2021.06
• Research Intern. Supervisor: Bolei Zhou and Chunxiao Liu • Topic: Driving simulator with procedure generation, traffic prediction	
DCD Lab, Zhejiang University Hangzhou, China	2019.08 - 2020.07
• Research Intern. Supervisor: Xi Li • Topic: Face animation with GAN	

AWARDS AND HONORS

• CVPR travel award	2024.04
• Hong Kong Postgraduate Fellowship Scholarship (HKPFS)	2021.09
• Vice-Chancellor HKPFS Scholarship, CUHK	2021.09
• National Scholarship, Zhejiang University	2020.09
• National Scholarship, Zhejiang University	2019.09
• Championship of R&D track in ByteCamp, ByteDance	2020.09
• CSST Scholarship, UCLA	2020.03
• SenseTime Scholarship, SenseTime	2019.11
• Pilot Scholarship, Zhejiang University	2020.09
• First-Class of Outstanding Merit Scholarship, Zhejiang University	2020.09
• First-Class of Outstanding Merit Scholarship, Zhejiang University	2019.09
• First-Class of Outstanding Merit Scholarship, Zhejiang University	2018.09

PROFESSIONAL
SERVICES

Journal Reviewer: IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Visualization and Computer Graphics

Conference Reviewer: NeurIPS 2023, ICLR 2024/2025, CVPR 2024/2025, ICML 2024/2025, Siggraph Asia 2024, AAAI 2025, ICCV 2025

Teaching Assistant: Information and Software Engineering Practice (IERG 3080), 2021
Multimedia Coding and Applications (IERG4190/IEMS5707), 2021