Yihang Chen





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Education

Shanghai Jiao Tong University, Ph.D Candidate (Joint Ph.D program with Monash University) Shanghai, China Information and Communication Engineering, SEIEE Sept. 10, 2021 - Jun. 30, 2026 (expected)

Dalian University of Technology, Bachelor of Engineering Degree, top 5% Electronic Information Engineering (English Intensive), SICE

Dalian, China

Sept. 01, 2017 - Jun. 21, 2021

Research Interests

3D reconstruction: Familiar with NeRF/3DGS. Knowledged with NeRF and 3DGS in static and dynamic scenes, feedforward-based 3DGS (such as MVSplat, LGM, GS-LRM, etc.), and large-scene reconstruction.

Compression/Coding: Familiar with deep-learning-based compression of 3D representations, images and videos. Focus on NeRF/3DGS compression.

Work Experience

NVIDIA Research, Research Intern ByteDance, Research Intern

May 05, 2025 - July 25, 2025 Santa Clara, USA

Feb. 22, 2021 - Aug. 24, 2021 Beijing, China

Publication List

3D Radiance Field + Compression

- Yihang Chen*, Mengyao Li*, Qianyi Wu, Weiyao Lin, Mehrtash Harandi, Jianfei Cai, "PCGS: Progressive Compression of 3D Gaussian Splatting", ARXIV 2025, under review.
- Yihang Chen, Qianyi Wu, Weiyao Lin, Mehrtash Harandi, Jianfei Cai, "HAC++: Towards 100X Compression of 3D Gaussian Splatting", ARXIV 2025, under review.
- Yihang Chen, Qianyi Wu, Mengyao Li, Weiyao Lin, Mehrtash Harandi, Jianfei Cai, "Fast Feedforward 3D Gaussian Splatting Compression", ICLR 2025.
- Yihang Chen, Qianyi Wu, Weiyao Lin, Mehrtash Harandi, Jianfei Cai, "HAC: Hash-grid Assisted Context for 3D Gaussian Splatting Compression", ECCV 2024.
- Yihang Chen, Qianyi Wu, Mehrtash Harandi, Jianfei Cai, "How Far Can We Compress Instant-NGP-Based NeRF?", CVPR 2024.

Image Compression

• Shizhan Liu, Weiyao Lin, Yihang Chen, Yufeng Zhang, Wenrui Dai, John See, Hongkai Xiong, "A Unified Framework for Jointly Compressing Visual and Semantic Data", ACM TOMM 2024.

Others

- Tieyuan Chen, Huabin Liu, Yi Wang, Yihang Chen, Tianyao He, et al., "MECD+: Unlocking Event-Level Causal Graph Discovery for Video Reasoning", ARXIV 2025, under review.
- Tieyuan Chen*, Huabin Liu*, Tianyao He, Yihang Chen, Chaofan Gan, et al., "MECD: Unlocking Multi-Event Causal Discovery in Video Reasoning", NIPS 2024, spotlight.

- Zhenyu Xie, Zelin Ni, Wenjie Yang, Yuang Zhang, Yihang Chen, Yang Zhang, Xiao Ma, "A Robust Online Multi-Camera People Tracking System With Geometric Consistency and State-aware Re-ID Correction", CVPR Workshop 2024.
- Yihang Chen, Weijie Dong, Yongping Xie, "A dual realization of Chua's chaotic oscillator using a current-controlled nonlinear resistor", *ICCS* 2021.

Patent & Proposal

- Weiyao Lin, **Yihang Chen**, Jianfei Cai, Mehrtash Harandi, Qianyi Wu, "An Instant-NGP model compression method based on context model", *Chinese Patent*, *under review*.
- Yihang Chen, Weiyao Lin, "Coding context prediction using hyperprior", Tech Proposal, IEEE 1857.11 Standard.

Awards

National Scholarship, top 5% in the School

Nov. 2018, China
Tolybread Scholarship (higher than National Scholarship), top 1 in the School

Nov. 2019, China

Skills

Programming: Python (Pytorch), C/C++, CUDA, LaTeX

Language: Chinese (native), English