




Yihang Chen

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Education

Shanghai Jiao Tong University, Ph.D Candidate **Shanghai, China**
Information and Communication Engineering, SEIEE Sept. 2021 – Present

Monash University, Ph.D Candidate **Melbourne, Australia**
Electrical and Computer Systems Engineering, Faculty of Engineering Sept. 2021 – Present

Dalian University of Technology, Bachelor of Engineering Degree, top 5% **Dalian, China**
Electronic Information Engineering (English Intensive), SICE Sept. 2017 – Jun. 2021

**I am a joint Ph.D candidate of SJTU and Monash University, supervised by Prof. Weiyao Lin, Prof. Jianfei Cai and Prof. Mehrtash Harandi. My research interests include NeRF/3DGS compression and image/video compression.*

Work Experience

ByteDance, Research Intern **Beijing, China**
Research on low-light video enhancement. Also experienced with image/video coding. Feb. 2021 – Aug. 2021

Publication List

3D Radiance Field Compression

- **Yihang Chen**, Qianyi Wu, Mengyao Li, Weiyao Lin, Mehrtash Harandi, Jianfei Cai, “Fast Feedforward 3D Gaussian Splatting Compression”, **ARXIV 2024, preprint**.
- **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

- Tiejun 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**.
**This is my very first work done at DUT during my undergraduate years, on the topic of circuits and systems.*

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**.
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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, C/C++, CUDA, LaTeX

Language: Chinese (native), English