

Zilong Chen

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Summary

I am interested in multimodal generation. Previously, my primary research focused on 3D reconstruction and generation. I am a Ph.D student at Department of Computer Science and Technology, Tsinghua University, where I am advised by [Prof. Huaping Liu](#). Before joining Tsinghua University, I completed my undergraduate studies at Xi'an Jiaotong University under the supervision of [Prof. Minnan Luo](#), focusing on knowledge graphs and their applications in natural language processing.

Education

- PhD** **Tsinghua University**, Computer Science Sept 2022 – present
- Advisor: [Huaping Liu](#)
- BS** **Xi'an Jiaotong University**, Physics Sept 2018 – July 2022
- Advisor: [Minnan Luo](#)

Experience

- Shengshu Inc.**, Research intern on video and 3D generation Beijing, China
- Alleviating Janus problem in optimization-based 3D generation methods. (CVPR 2024 [3]) Nov 2023 – Mar 2025
 - Finetune video diffusion model for 3D generation.
 - Native 3D generation using limited 3D data. (CVPR 2025 Highlight [1])

Publications (= Indicates Equal Contribution)

- [1] MeshGen: Generating PBR Textured Mesh with Render-Enhanced Auto-Encoder and Generative Data Augmentation** CVPR 2025 (Highlight)
[Zilong Chen](#), Yikai Wang, Wenqiang Sun, Feng Wang, Yiwen Chen, Huaping Liu
heheyas.github.io/MeshGen
- [2] V3d: Video diffusion models are effective 3D generators** T-PAMI 2025
[Zilong Chen](#), Yikai Wang, Feng Wang, Zhengyi Wang, Huaping Liu
heheyas.github.io/V3D
- [3] Text-to-3d using gaussian splatting** CVPR 2024
[Zilong Chen](#), Feng Wang, Yikai Wang, Huaping Liu
gsgen3d.github.io
- [4] Gaussianeditor: Swift and controllable 3d editing with gaussian splatting** CVPR 2024
 Yiwen Chen, [Zilong Chen](#), Chi Zhang, Feng Wang, Xiaofeng Yang, Yikai Wang, Zhongang Cai, Lei Yang, Huaping Liu, Guosheng Lin
buaacyw.github.io/gaussian-editor
- [5] Masked space-time hash encoding for efficient dynamic scene reconstruction** NeurIPS 2023 (Spotlight)
 Feng Wang, [Zilong Chen](#), Guokang Wang, Yafei Song, Huaping Liu
masked-spacetime-hashing.github.io
- [6] Video4DGen: Enhancing Video and 4D Generation through Mutual Optimization** T-PAMI 2025
 Yikai Wang, Guangce Liu, Xinzhou Wang, [Zilong Chen](#), Jiafang Li, Xin Liang, Fuchun Sun, Jun Zhu
vidu4d-dgs.github.io

- [7] **Vidu4d: Single generated video to high-fidelity 4d reconstruction with dynamic gaussian surfels** NeurIPS 2024
Yikai Wang, Xinzhou Wang, [Zilong Chen](#), Zhengyi Wang, Fuchun Sun, Jun Zhu
vidu4d-dgs.github.io [🔗](#)
- [8] **Meshanything v2: Artist-created mesh generation with adjacent mesh tokenization** arxiv 2024
Yiwen Chen, Yikai Wang, Yihao Luo, Zhengyi Wang, [Zilong Chen](#), Jun Zhu, Chi Zhang, Guosheng Lin
buaacyw.github.io/meshanything-v2 [🔗](#)
- [9] **Dimensionx: Create any 3d and 4d scenes from a single image with controllable video diffusion** arxiv 2024
Wenqiang Sun, Shuo Chen, Fangfu Liu, [Zilong Chen](#), Yueqi Duan, Jun Zhang, Yikai Wang
chenshuo20.github.io/DimensionX [🔗](#)
- [10] **Freeplane: Unlocking Free Lunch in Triplane-Based Sparse-View Reconstruction Models** arxiv 2024
Wenqiang Sun, Zhengyi Wang, Shuo Chen, Yikai Wang, [Zilong Chen](#), Jun Zhu, Jun Zhang
freeplane3d.github.io [🔗](#)
- [11] **Twibot-22: Towards graph-based twitter bot detection** NeurIPS 2022
Shangbin Feng=, Zhaoxuan Tan=, Herun Wan=, Ningnan Wang=, [Zilong Chen](#)=, Binchi Zhang=, Qinghua Zheng, Wenqian Zhang, Zhenyu Lei, Shujie Yang, others
- [12] **Knowledge graph augmented political perspective detection in news media** arxiv 2021
Shangbin Feng, [Zilong Chen](#), Qingyao Li, Minnan Luo
- [13] **Encoding heterogeneous social and political context for entity stance prediction** arxiv 2021
Shangbin Feng, [Zilong Chen](#), Peisheng Yu, Minnan Luo
- [14] **KCD: Knowledge walks and textual cues enhanced political perspective detection in news media** NAACL 2022 (Oral)
Wenqian Zhang=, Shangbin Feng=, [Zilong Chen](#)=, Zhenyu Lei, Jundong Li, Minnan Luo
- [15] **BIC: Twitter bot detection with text-graph interaction and semantic consistency** ACL 2023
Zhenyu Lei, Herun Wan, Wenqian Zhang, Shangbin Feng, [Zilong Chen](#), Jundong Li, Qinghua Zheng, Minnan Luo
- [16] **KRACL: Contrastive learning with graph context modeling for sparse knowledge graph completion** WWW 2023
Zhaoxuan Tan, [Zilong Chen](#), Shangbin Feng, Qingyue Zhang, Qinghua Zheng, Jundong Li, Minnan Luo
- [17] **Kgap: Knowledge graph augmented political perspective detection in news media** arxiv 2021
Shangbin Feng, [Zilong Chen](#), Wenqian Zhang, Qingyao Li, Qinghua Zheng, Xiaojun Chang, Minnan Luo
- [18] **PAR: Political Actor Representation Learning with Social Context and Expert Knowledge** EMNLP 2022
Shangbin Feng, Zhaoxuan Tan, [Zilong Chen](#), Ningnan Wang, Peisheng Yu, Qinghua Zheng, Xiaojun Chang, Minnan Luo

Projects

- 3D Gaussian Splatting** [🔗](#) 2024
- Implementing 3D Gaussian Splatting using pure CUDA.
 - Support my own researches on 3D Gaussian Splatting related topics.
- Segment Anything in NeRF** [🔗](#) 2024
- Extending Segment Anything to 3D scenes with NeRF and support natural language prompt with CLIP-Seg.
 - Using depth-based point prompt for accurate 3D point prompting.

Awards _____

Huiyan Scholarship (Tsinghua University)	2024
Track winner, BMW hackthon	2023

Technologies _____

Languages: C++, C, CUDA, Python
Software: Blender, LaTeX