

Haoyu Zhen

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github.com/anyeZHY

EDUCATION

- University of Massachusetts** Amherst, US
Ph.D. Student Sept 2024 - Current
 - Supervisor:** Prof. Chuang Gan
 - Research Interests:** 3D & 4D Foundation Models, World Models, Embodied AI.
- Shanghai Jiao Tong University** Shanghai, China
Bachelor of Engineering Sept 2020 - Current
 - Overall GPA:** 92.80/100, 4.03/4.30 (Rank 4/88).
 - 4th semester GPA:** 95.24/100, 4.20/4.30 (**Rank 1/89**).
 - Selected Courses:** Machine Learning, Natural Language Process, Deep Learning, Reinforce Learning
- Massachusetts Institute of Technology** Cambridge, US
Visiting Student July 2023 - Dec 2023

PUBLICATIONS

- Tesseract: Learning 4D Embodied World Models** ICCV 2025
Haoyu Zhen, Qiao Sun, Hongxin Zhang, Junyan Li, Siyuan Zhou, Yilun Du, Chuang Gan[†]  200+ stars
- RapVerse: Coherent Vocals and Whole-Body Motions Generations from Text** ICCV 2025
Jiabao Chen, Xin Yan, Yihang Chen, Siyuan Cen, Qinwei Ma, Haoyu Zhen, Kaizhi Qian, Lie Lu, Chuang Gan[†]
- 3D-VLA: A 3D Vision-Language-Action Generative World Model** ICML 2024
Haoyu Zhen, Xiaowen Qiu, Peihao Chen, Jincheng Yang, Xin Yan, Yilun Du, Yining Hong, Chuang Gan[†]  500+ stars
- 3D-LLM: Injecting 3D World into Large Language Model** NeurIPS 2023 Spotlight
Yining Hong, Haoyu Zhen, Peihao Chen, Shuhong Zheng, Yilun Du, Zhenfang Chen, Chuang Gan[†]  1k+ stars
- Color-NeuS: Reconstructing Neural Implicit Surfaces with Color** 3DV 2024
Licheng Zhong, Lixin Yang, Kailin Li, Haoyu Zhen, Mei Han, Cewu Lu[†]
- Relative Entropic Optimal Transport: a (Prior-aware) Matching Perspective to (Unbalanced) Classification** NeurIPS 2023
Liangliang Shi, Haoyu Zhen, Gu Zhang, Junchi Yan[†]
- CHORD: Category-level in-Hand Object Reconstruction via Shape Deformation** ICCV 2023
Kailin Li^{*}, Lixin Yang^{*}, Haoyu Zhen, Zenan Lin, Xinyu Zhan, Licheng Zhong, Jian Xu, Kejian Wu, Cewu Lu[†]
- Understanding and Generalizing Contrastive Learning from the Inverse Optimal Transport Perspective** ICML 2023
Liangliang Shi, Gu Zhang, Haoyu Zhen, Jintao Fan, Junchi Yan[†]

EXPERIENCE

- Meshy AI, Taichi Graphics** Beijing, China
Research intern, supervised by Dr. Tiantian Liu and Dr. Yuanming Hu Feb 2024 - Aug 2024
3D Generation and Diffusion Model
- Computational Cognitive Science Lab, MIT** Cambridge, US
Visiting scholar, supervised by Prof. Josh Tenenbaum Mar 2023 - Dec 2023
Embodied AI and 3D Vision
- MIT-IBM Watson AI Lab** Cambridge, US
Visitor, supervised by Prof. Chuang Gan and Dr. Zhenfang Chen July 2023 - Dec 2023
Diffusion Model, Large Language Model and World Model
- Machine Vision and Intelligence Group** Shanghai, China
Undergraduate researcher, supervised by Prof. Cewu Lu and Dr. Lixin Yang Dec 2021 - July 2024
 3D Reconstruction and Hand-Object Interaction.
- SJTU-ReThinklab** Shanghai, China
Undergraduate researcher, supervised by Prof. Junchi Yan. Sept 2022 - May 2023
 Self-supervised Learning (Contrastive Learning) and Optimal Transport

PROJECTS

- **PyBlend: A Python Library for Blender**
Shanghai Jiao Tong University *Aug 2023*
 - Built PyBlend, a Python library aimed at enhancing Blender scripting. [🔗GitHub](#).
- **Shanghai Jiao Tong University AI Pilot Class Website**
Shanghai Jiao Tong University *Jan 2022 - Apr 2022*
 - Built a community for the AI pilot class at SJTU. Homepage: [🔗Website](#) or [🔗GitHub](#).

HONORS AND AWARDS

- 2023. Rong Chang Scholarship (10 winners, 30000¥)
- 2021/2022/2023. Academic Excellence Scholarship of SJTU (top 10%)
- 2021. Huawei Smart Base Scholarship
- 2019. The first prize of the 36th CPHO semi-finals, Beijing Division (Rank: 17, top 1%)

SKILLS SUMMARY

- **Proficient:** Python (PyTorch, NumPy, pandas, scikit-learn, etc.), C/C++, Linux, Shell (Bash/Zsh), L^AT_EX, Git, Blender
- **Familiar:** MATLAB, HTML/CSS, etc.