Yuchen Zhou

Email | Page | GitHub | Google Scholar

Education

Ph.D. Student in Computer Science and Enginnering Sept 2025 – Present
University of California, San Diego. Advisor: Prof. Hao Su
Research Topics/Interests: Embodied AI, Computer Vision

M.S. in Computer Science and Enginnering Sept 2023 – Mar 2025
University of California, San Diego. Advisor: Prof. Hao Su
Research Topics: 3D Computer Vision

B.S. in Software Engineering Sept 2019 – Jun 2023
Tsinghua University. Advisor: Prof. Yang Gao

Publications

Point-SAM: Promptable 3D Segmentation Model for Point Clouds
International Conference on Learning Representations (**ICLR**) 2025
Yuchen Zhou*, Jiayuan Gu*, Tung Yen Chiang, Fanbo Xiang, Hao Su
arXiv | project page | GitHub

PartSLIP++: Enhancing Low-Shot 3D Part Segmentation via Multi-View Instance Segmentation and Maximum Likelihood Estimation
Wild3D Workshop at International Conference on Computer Vision (**ICCV**) 2025
Yuchen Zhou*, Jiayuan Gu*, Xuanlin Li, Minghua Liu, Yunhao Fang, Hao Su
arXiv | GitHub

ORIC: Benchmarking Object Recognition in Incongruous Context for Large Vision-Language Models
MMRAgI Workshop at International Conference on Computer Vision (**ICCV**) 2025
Zhaoyang Li, Zhan Ling, **Yuchen Zhou**, Hao Su
arXiv

Experience

Research Intern, Hillbot Inc. – San Diego, CA Sept 2024 – Mar 2025

- Trained robust RL policies for collision-aware pick-and-place skills in a shelving robot system.
- Conducted Sim-to-Real development for robust real-world performance of the shelving robot platform.
- Reproduced the π_0 VLA training workflow on private robot data to support adaptation to a new robotic system.

Projects

Point-SAM ⋆300+ GitHub Link

- Implementation of Point-SAM: Promptable 3D Segmentation Model for Point Clouds.
- Designed and implemented the training and data collection pipeline for an open-world promptable segmentation framework on point clouds.
- Designed and implemented an interactive tool for 3D object segmentation and part-level annotation.
- Released a dataset with over 1M segmentation masks of 100k 3D objects.

PartSLIP++ ⋆40+ GitHub Link

- Implementation of PartSLIP++: Enhancing Low-Shot 3D Part Segmentation via Multi-View Instance Segmentation and Maximum Likelihood Estimation.
- Developed a part segmentation pipeline by lifting GLIP's segmentation results from images to point clouds.

Skills

Programming Languages: Python, C++, C, Typescript, Javascript, Java, SQL

Frameworks/Tools: Pytorch, Jax, Tensorflow, Accelerate, Numpy, Open3D, Trimesh, Pandas, scikit-learn