Xinyue Yao

M.Phil. Student in Computer Science
The Chinese University of Hong Kong, Shenzhen

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Google Scholar

Research Interests

3D/4D Generation. Generating 3D objects and scenes, with an emphasis on articulated structure and motion over time.

Simulation & Embodied AI. Simulation environments and training data for robotic manipulation; perception, planning, and object interaction.

Education

The Chinese University of Hong Kong, Shenzhen 2025 - 2027 (expected)
M.Phil. in Computer Science | GPA: 3.5/4.0
Advisor: Prof. Kui Jia

Zhejiang University 2021 - 2025
B.E. in Robotics Engineering | GPA: 3.69/4.0
Chu Kochen Honors College; College of Control Science and Engineering

Publications

ZAP: Zero-Shot Assembly Planning with Large Language Models
L. Peng, Y. Wang, C. Lv, W. Jiang, L. Xu, J. Mei, **X. Yao**, Y. Liu
European Conference on Computer Vision (ECCV), 2026
Parses multi-view images into structured part descriptions and uses VLM reasoning to plan robot-executable assembly sequences. Requires neither task-specific CAD models nor human-written manuals.

PAct: Part-Decomposed Single-View Articulated Object Generation
Q. Liu, **X. Yao**, S. Zhang, Y. Deng, G. Liu, Z. Liu, K. Jia
ACM SIGGRAPH Asia, 2026
Generates articulated 3D assets from a single image using part-aware latent representations, jointly modeling geometry and motion. Enables fast inference without per-instance optimization.

GAT-Grasp: Gesture-Driven Affordance Transfer for Task-Aware Robotic Grasping
R. Wang, H. Zhou, **X. Yao**, G. Liu, K. Jia
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2025
Uses hand gestures to guide task-specific grasp poses by retrieving affordance knowledge from human-object interaction videos. Generalizes to unseen objects and clutter without object priors.

Experience

DexForce Technology Co., Ltd. Aug. 2026 - Present
Embodied AI Research Intern

The Chinese University of Hong Kong, Shenzhen Aug. 2025 - Present
M.Phil. Student

The Chinese University of Hong Kong, Shenzhen Sept. 2024 - June 2025
Research Intern

APRIL Lab, Zhejiang University Mar. 2024 - Aug. 2024
Research Intern