

YUANHANG ZHANG

[Homepage](#) yuanhanz@andrew.cmu.edu [Github](#) [Google Scholar](#) [Pittsburgh, PA, USA](#)

RESEARCH INTERESTS

My research focuses on advancing robotic loco-manipulation with complex and dynamic physical interaction in the real world. I integrate deep learning and model-based control to achieve agility, adaptivity, and generalizability for robots in cluttered environments.

EDUCATION

Carnegie Mellon University M.S. in Robotic Systems and Development, GPA: 3.81/4.00	Pittsburgh, USA Sep. 2024 - Present
Shanghai Jiao Tong University B.Eng. in Automation, GPA: 3.78/4.3	Shanghai, China Sep. 2019 - Jun. 2023

EXPERIENCE

Amazon, Frontier AI & Robotics (FAR) Applied Scientist Intern • Advisors: Prof. Pieter Abbeel and Dr. Rocky Duan • Topic: perceptive and adaptive humanoid loco-manipulation	San Francisco, CA, USA May 2025 - Present
Carnegie Mellon University Research Assistant • Advisor: Prof. Guanya Shi • Topic: adaptive humanoid whole-body control, aerial manipulation	Pittsburgh, USA Oct. 2024 - Present
Tsinghua University, IIIS Full-Time Research Assistant • Advisor: Prof. Huazhe Xu • Topic: agile and dynamic mobile manipulation with dexterity	Beijing, China Jan. 2024 - Jul. 2024
Shanghai Jiao Tong University Research Intern • Advisor: Prof. Zhongqiang Ren • Topic: multi-agent combinatorial path finding	Shanghai, China Jul. 2023 - Dec. 2023

PUBLICATIONS

* Equal contribution † Corresponding author

- [1] [L4DC 2026 (Oral)] Yuanhang Zhang, Yifu Yuan, Prajwal Gurunath, Tairan He, Shayegan Omidshafiei, Ali-akbar Agha-mohammadi, Marcell Vazquez-Chanlatte, Liam Pedersen, and Guanya Shi. “FALCON: Learning Force-Adaptive Humanoid Loco-Manipulation”.

- [2] [RSS 2025] Tairan He*, Jiawei Gao*, Wenli Xiao*, Yuanhang Zhang*, Zi Wang, Jiashun Wang, Zhengyi Luo, Guanqi He, Nikhil Sobanbab, Chaoyi Pan, et al. “ASAP: Aligning Simulation and Real-World Physics for Learning Agile Humanoid Whole-Body Skills”.
- [3] [ICRA 2025, Outstanding Paper Nomination @ CoRL LFDM 2025] Yuanhang Zhang, Tianhai Liang, Zhenyang Chen, Yanjie Ze, and Huazhe Xu. “Catch It! Learning to Catch in Flight with Mobile Dexterous Hands”.
- [4] [RSS 2025] Guanqi He*, Xiaofeng Guo*, Luyi Tang, Yuanhang Zhang, Mohammadreza Mousaei, Jiahe Xu, Junyi Geng, Sebastian Scherer, and Guanya Shi. “Flying Hand: End-Effector-Centric Framework for Versatile Aerial Manipulation Teleoperation and Policy Learning”.
- [5] [CoRL 2025] Yitang Li, Yuanhang Zhang, Wenli Xiao, Chaoyi Pan, Haoyang Weng, Guanqi He, Tairan He, and Guanya Shi. “Hold My Beer: Learning Gentle Humanoid Locomotion and End-Effector Stabilization Control”.
- [6] [SoCS 2024] Yuanhang Zhang, Xuemian Wu, Hesheng Wang, and Zhongqiang Ren. “Multi-Agent Combinatorial Path Finding with Heterogeneous Task Duration”.
- [7] [Under Review 2026] Yufeng Tian, Shuiqi Cheng, Tianming Wei, Tianxing Zhou, Yuanhang Zhang, Zixian Liu, Zhecheng Yuan, and Huazhe Xu. “ViTaS: Visual Tactile Soft Fusion Contrastive Learning for Reinforcement Learning”.

HONORS & AWARDS

- Outstanding Graduate (< 3%), Shanghai Jiao Tong University 2023
- Merit Student (< 3%), Shanghai Jiao Tong University 2022

COMPETITIONS

- International VEX Robotics Competition** Shanghai, China
 Programming Team Leader @ SJTU VEX Robotics Club [Website] / [2021 Season Reveal] 2020-2022
- 2021 National VEX Robotics Competition: Tournament Champions & Skills Champion (**World Record**).
 - 2021 VEX Robotics Competition Asian Open: Tournament Champions VEXU; Excellence Award.
 - 2021 VEX Robotics Competition China Final: Tournament Champions VEXU; Excellence Award.
- National University IOT Design Competition** Shanghai, China
 ‘HarClass’: A Cloud-Based Distributed System for Smart Classrooms [Video (Chinese)] 2022
- National First Prize & Harmony Innovation Award (**TOP 1%**)

SKILLS

Programming: Python, C/C++, MATLAB, JAVA, LaTeX
Frameworks & Tools: Pytorch, Warp, ROS/ROS2, IsaacGym, IsaacSim/IsaacLab, Mujoco, Gazebo
DevOps: AWS, Docker, SkyPilot, Conda, Jenkins, Weights & Biases
Languages: Chinese (Native), English (TOFEL 107)

SERVICE

- Reviewer, CoRL, ICRA, IROS 2025 - Present