

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: 3.96/4.00	Pittsburgh, USA Sept. 2024 – Present
Shanghai Jiao Tong University B.Eng. in Automation, GPA: 3.78/4.3	Shanghai, China Sept. 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. 2024

PUBLICATIONS

* Equal contribution † Corresponding author

- [1] [Under Review 2026] 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