

# YUANHANG ZHANG

[Homepage](#) [yuanhanz@andrew.cmu.edu](mailto: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	Pittsburgh, USA
M.S. in Robotic Systems and Development, GPA: 3.81/4.00	Sep. 2024 - Present
Shanghai Jiao Tong University	Shanghai, China
B.Eng. in Automation, GPA: 3.78/4.3	Sep. 2019 - Jun. 2023

## EXPERIENCE

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

## PUBLICATIONS

\* Equal contribution    † Corresponding author

- [1] [Under Review 2026] Yuanhang Zhang, Younggyo Seo, Juyue Chen, Yifu Yuan, Koushil Sreenath, Pieter Abbeel, Carmelo Sferrazza, Karen Liu, Rocky Duan, and Guanya Shi. “RPL: Learning Robust Humanoid Perceptive Locomotion on Challenging Terrains”.

- [2] [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”.
- [3] [RSS 2025] Tairan He\*, Jiawei Gao\*, Wenli Xiao\*, Yuanhang Zhang\*, Zi Wang, Jiashun Wang, Zhengyi Luo, Guanqi He, Nikhil Sobabab, Chaoyi Pan, et al. “ASAP: Aligning Simulation and Real-World Physics for Learning Agile Humanoid Whole-Body Skills”.
- [4] [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”.
- [5] [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”.
- [6] [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”.
- [7] [SoCS 2024] Yuanhang Zhang, Xuemian Wu, Hesheng Wang, and Zhongqiang Ren. “Multi-Agent Combinatorial Path Finding with Heterogeneous Task Duration”.
- [8] [ICRA 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

- |   |   |
|---|---|
| <p><b>International VEX Robotics Competition</b></p> <p>Programming Team Leader @ SJTU VEX Robotics Club [<a href="#">Website</a>] / [<a href="#">2021 Season Reveal</a>] 2020-2022</p> <ul style="list-style-type: none"> <li>• 2021 National VEX Robotics Competition: Tournament Champions &amp; Skills Champion (<a href="#">World Record</a>).</li> <li>• 2021 VEX Robotics Competition Asian Open: Tournament Champions VEXU; Excellence Award.</li> <li>• 2021 VEX Robotics Competition China Final: Tournament Champions VEXU; Excellence Award.</li> </ul> <p><b>National University IOT Design Competition</b></p> <p>‘HarClass’: A Cloud-Based Distributed System for Smart Classrooms [<a href="#">Video (Chinese)</a>] 2022</p> <ul style="list-style-type: none"> <li>• National First Prize &amp; Harmony Innovation Award (<a href="#">TOP 1%</a>)</li> </ul> | <p>Shanghai, China</p> <p>Shanghai, China</p> |
|---|---|

## 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