

DINGQI ZHANG PH.D. CANDIDATE

EDUCATION

University of California, Berkeley	Berkeley, CA
<i>Ph.D. in Control and Robotics</i>	Aug 2021 - May 2026 (<i>expected</i>)
- Advisor: Prof. Mark W. Mueller, Prof. Jitendra Malik	
- Research area: Learning-based adaptive and dynamic motor control for robots	
Cornell University	Ithaca, NY
<i>B.S. in Computer Science and Mechanical Engineering</i>	Aug 2017 - May 2021

EXPERIENCE

RAI Institute (formerly known as the Boston Dynamics AI Institute)	Boston, MA
<i>Research Intern on Dexterous Mobile Manipulation</i>	Summer 2025
- Research focus: sim-to-real adaptation for dynamic, contact-rich robotic manipulation via model-based reinforcement learning and real world RL, demonstrated on pen spinning tasks with the Allegro Hand	
University of California, Berkeley	Berkeley, CA
<i>Graduate Researcher</i>	Aug 2021 - present
- Research focus: developing a single controller for cross-embodiment adaptation with imitation and reinforcement learning, demonstrated on aerial vehicles with 10x–100x parameter variations	
The Chinese University of Hong Kong	Hong Kong
<i>Visiting Researcher, advised by Prof. Ben M. Chen</i>	Summer 2024
Zipline International Inc.	South San Francisco, CA
<i>Engineer Intern on Guidance, Navigation, and Control</i>	Summer 2023

PUBLICATIONS

- D. Zhang, A. Loquercio, J. Tang, T.-H. Wang, J. Malik, and M. W. Mueller, "A learning-based quadcopter controller with extreme adaptation," *IEEE Transactions on Robotics*, vol. 41, pp. 3948–3964, 2025. DOI: 10.1109/TRO.2025.3577037
- R. Zhang, D. Zhang, M. W. Mueller, "ProxFly: Robust Control for Close Proximity Quadcopter Flight via Residual Reinforcement Learning," in *2025 IEEE International Conference on Robotics and Automation (ICRA)*, IEEE, 2025
- D. Zhang, A. Loquercio, X. Wu, A. Kumar, J. Malik, and M. W. Mueller, "Learning a single near-hover position controller for vastly different quadcopters," in *2023 IEEE International Conference on Robotics and Automation (ICRA)*, IEEE, 2023, pp. 1263–1269

FELLOWSHIP AND GRANT

- Ignite Grant**, the Jacobs Institute Innovation Catalysts, UC Berkeley Jan 2024
- Top 3% award for advanced student-led design and technology projects.
- Spark Grant**, the Jacobs Institute Innovation Catalysts, UC Berkeley Sept 2023
- Top 7% award for early-stage innovative ideas in design and technology.
- Graduate Division Block Grant Award**, UC Berkeley Aug 2021
- Fellowship recognizing academic excellence and research potential.

ACADEMIC SERVICE

Reviewer for:

Journals: IEEE Transactions on Robotics (T-RO), IEEE Robotics and Automation Letters (RA-L), IEEE/ASME Transactions on Mechatronics (TMECH)

Conferences: Robotics: Science and Systems (RSS), International Conference on Robotics and Automation (ICRA), International Conference on Intelligent Robots and Systems (IROS)

EDUCATIONAL ACTIVITIES

ME136/236 Dynamics and Control of Autonomous Flight	Fall 2024
<i>Teaching Assistant, UC Berkeley</i>	
Master of Future Energy Systems and Technology degree program Jan 2023 - Sept 2024	
<i>Teaching Assistant, Dubai Electricity and Water Authority (DEWA) and UC Berkeley</i>	

INVITED SPEAKER

Keynote: A Learning-based Quadcopter Controller for Extreme Adaptation, Control Seminar, UC Berkeley	Apr 2025
Poster and Keynote: Bay Area Robotics Symposium, UC Berkeley	Oct 2024
Presentation at Prof. Ben M. Chen's group, Chinese University of Hong Kong	July 2024
Presentation at the Intelligent Positioning and Navigation Laboratory, Hong Kong Polytechnic University	July 2024
Poster and Keynote: Bay Area Robotics Symposium, UC Berkeley	Oct 2022

MEDIA COVERAGE

IEEE Spectrum, Video Friday: Your weekly selection of awesome robot [link]	Oct 4, 2024
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TECHNICAL SKILLS

Core Expertise: sim-to-real transfer, reinforcement learning, adaptive control, imitation learning

Frameworks: PyTorch, ROS, IsaacLab, MuJoCo, WandB, Git

Languages: Python, C/C++, MATLAB, Julia, Bash

Other: real-time systems, trajectory optimization, system identification, hardware deployment

Research Areas: dexterous manipulation, aerial robotics, adaptive control, sim-to-real