

Wu, Qi

Dept. of Computer Science,
Cornell University, Ithaca, NY
Tel: 1-(650)4419716 | E-mail: qw326@cornell.edu

EDUCATIONAL BACKGROUND

Cornell University <ul style="list-style-type: none">Ph.D. in Robotics	Ithaca, NY, United States	09/2025 – present
Stanford University <ul style="list-style-type: none">M.S. in Mechanical Engineering	Stanford, CA, United States Overall GPA: 4.05/4.3	09/2023 – 06/2025
Tsinghua University <ul style="list-style-type: none">B.S. in Mechanical Engineering (Elite program)	Beijing, China Overall GPA: 3.80/4.0	09/2019 – 07/2023

PUBLICATION

- Q. Wu**, Z. Fu, X. Cheng, X. Wang, and C. Finn, “Helpful DoggyBot: Open-World Object Fetching using Legged Robots and Vision-Language Models.” *2025 IEEE International Conference on Robotics and Automation* (under review)
- Z. Fu*, Q. Zhao*, **Q. Wu***, G. Wetzstein, and C. Finn, “HumanPlus: Humanoid shadowing and imitation from humans.” *2024 Conference on Robot Learning (Outstanding Paper Award Finalist (top 6))*
- Q. Wu***, C. Zhang* and Y. Liu, "Custom Sine Waves Are Enough for Imitation Learning of Bipedal Gaits with Different Styles," *2022 IEEE International Conference on Mechatronics and Automation (ICMA)*, 2022, pp. 499-505, doi: 10.1109/ICMA54519.2022.9856382.

RESEARCH EXPERIENCES

Helpful DoggyBot: Open-World Object Fetching using Legged Robots and Vision-Language Models 11/2023 – 09/2024

Graduate research, Advisor: [Prof. Chelsea Finn](#), Stanford University.

- Manipulated objects using a front-mounted gripper with fisheye and egocentric RGB perception.
- Trained a low-level controller in simulation using egocentric depth for agile skills like climbing and tilting
- Used pre-trained vision-language models (VLMs) for semantic understanding and command generation.

HumanPlus: Humanoid shadowing and imitation from humans

03/2024 – 06/2024

Graduate research, Advisor: [Prof. Chelsea Finn](#), Stanford University.

- Trained a low-level policy in simulation via reinforcement learning using existing 40-hour human motion datasets.
- Sim-to-real transfer allows humanoid robots to follow real-time body and hand motion using only an RGB camera.
- Used teleoperation to collect whole-body data for learning different autonomous tasks through behavior cloning.

Custom Sine Waves Are Enough for Imitation Learning of Bipedal Gaits with Different Styles

03/2022 – 05/2022

Undergraduate research, Advisor: [Prof. Li Liu](#), Tsinghua University.

- Applied deep reinforcement learning on the walking of the robot Cassie in simulation without complete references.
- Designed a reward that can encourage the robot to learn various gaits from simple sine wave references.
- Finalist for the Toshio Fukuda Best Paper Award in Mechatronics (4/503) in *ICMA* 2022.

Hierarchical Control for Ostrich-like Robots Combining RL and Model-based Controller

06/2022 – 08/2022

Undergraduate research, Advisor: [Prof. Ye Zhao](#), Georgia Institute of Technology.

- Mounted a Kinova Gen3 on robot Cassie mimicking an ostrich to explore bipedal loco-manipulation.
- Designed a hierarchical control with RL-based locomotion and model-based manipulation.
- Achieved a 'chicken-head effect,' stabilizing the end-effector's height within 1 cm.

PROJECT EXPERIENCES

Stealth Startup

01/2025 – 07/2025

Robotics Engineering Intern

- Led hardware development and delivered the company's first minimum viable product (MVP).

RoboCup: Humanoid Robot for Soccer Game

01/2023 – 07/2023

Student Humanoid Robotics Group, Group Leader

- Led the Tsinghua MOS team to participate in [RoboCup 2023 in France](#) and won **Fourth** place.
- Programmed the robot to detect the ball, approach it, and kick toward the goal.
- Managed the robot hardware system, walking controller, and multi-robot high-level strategy.
- Responsible for leading a team of 15 people, coordinating tasks and planning overall strategies.

Chinese Space Station Robotic Arm Model for Science Exhibition

11/2021 – 10/2022

Practice of Product Engineering Design Course Project, Group Leader

- Designed and manufactured a [patented](#) model displaying how the arm can transport among adaptors on the station surface.
- Programmed controllers, designed circuit boards and designed mechanical models with FEM strength check.
- Exhibited at [China Science and Technology Museum](#) and covered by national major press.