

# Yilin Wu

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## ACADEMIC BACKGROUND

**Carnegie Mellon University**, Pittsburgh PA 2023 - 2028 (expected)  
*Ph.D. in Robotics, School of Computer Science*  
*Advisor: Andrea Bajcsy*

**Stanford University**, Stanford CA 2021 - 2023  
*M.S. in Computer Science, Artificial Intelligence*  
*Advisor: Dorsa Sadigh*

**Shanghai Jiao Tong University**, Shanghai China 2016 - 2020  
*B.S. in Information Security*

**University of California, Berkeley**, Berkeley CA 2019.1 - 2019.9  
*Exchange Student in Electrical Engineering and Computer Science*  
*Advisor: Pieter Abbeel*

## EXPERIENCE

**The Interactive and Trustworthy Robotics Lab (Intent Lab), CMU**  
PhD Student 2024.5 - Present  
*Advised by Andrea Bajcsy*  
Research on failure detection and continual learning for robotic manipulation in the human-centered environment.

**The Robots Perceiving and Doing Lab (R-Pad Lab), CMU**  
PhD Student 2023.10 - 2024.4  
*Advised by David Held*  
Research on applying reinforcement learning and flow-based methods for long-horizon, contact-rich manipulation, with robust generalization across object geometries, tool morphologies, and diverse tasks.

**The Intelligent and Interactive Autonomous Systems Group (ILIAD Lab)**  
Master Student 2021.9 - 2023. 6  
*Advised by Dorsa Sadigh*  
Research on assistive feeding including bimanual food acquisition and reactive in-mouth bite transfer as well as affordance-based imitation learning for bimanual manipulation.

**Nvidia Corporation, Santa Clara, CA**  
*Research Intern* 2022.6 - 2022.9  
Developed methods to improve the efficiency of model-based distributed reinforcement learning in Applied Deep Learning Research Team.

**Shanghai Qi Zhi Institute, Shanghai**  
Research Assistant 2020.9 - 2021.5  
*Advised by Yi Wu*  
Developed methods to improve reinforcement learning algorithms with self-imitation for robotic tasks by automatically discovering subgoals from value function.

**Berkeley Artificial Intelligence Research Lab (BAIR Lab), UC Berkeley**  
Undergraduate Researcher 2019.1 - 2019.9  
*Advised by Pieter Abbeel*  
Proposed a conditional pick-and-place action space and developed a reinforcement learning method with spatial action maps for deformable object manipulation.

## PUBLICATIONS

[9] Carl Qi\*, **Yilin Wu**\*, Lifan Yu, Haoyue Liu, Bowen Jiang, Xingyu Lin<sup>†</sup>, David Held<sup>†</sup>.

Learning Generalizable Tool-use Skills through Trajectory Generation. *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2024.

[8] Bowen Jiang\*, **Yilin Wu\***, Wenxuan Zhou, Chris Paxton, David Held. Spatially-Grounded Motion Primitives for Manipulation. *Robotics: Science and Systems (RSS)*, 2024.

[7] Alexander Khazatsky\*, Karl Pertsch\*, ... , **Yilin Wu**, ... . DROID: A Large-Scale In-the-Wild Robot Manipulation Dataset. *Robotics: Science and Systems (RSS)*, 2024.

[6] Abby O'Neill, ... , **Yilin Wu**, ... . Open X-Embodiment: Robotic Learning Datasets and RT-X Models. *International Conference on Robotics and Automation (ICRA)*, 2024.  
**Best Paper Award**

[5] Jennifer Grannen, **Yilin Wu**, Brandon Vu, Dorsa Sadigh. Stabilize to Act: Learning to Coordinate for Bimanual Manipulation. *The Conference on Robot Learning (CoRL)*, 2023,  
**Oral Presentation**

[4] Lorenzo Shaikewitz\*, **Yilin Wu\***, Suneel Belkhale\*, Jennifer Grannen, Priya Sundareshan, Dorsa Sadigh. In-Mouth Robotic Bite Transfer with Visual and Haptic Sensing. *International Conference on Robotics and Automation (ICRA)*, 2023

[3] Jennifer Grannen\*, **Yilin Wu\***, Suneel Belkhale, Dorsa Sadigh. Learning Bimanual Scooping Policies for Food Acquisition. *The Conference on Robot Learning (CoRL)*, 2022

[2] Yunfei Li, **Yilin Wu**, Huazhe Xu, Xiaolong Wang, Yi Wu. Solving Compositional Reinforcement Learning Problems via Task Reduction. *The International Conference on Learning Representations (ICLR)*, 2021

[1] **Yilin Wu\***, Wilson Yan\*, Thanard Kurutach, Lerrel Pinto, Pieter Abbeel. Learning to Manipulate Deformable Objects without Demonstrations. *Robotics: Science and Systems (RSS)*, 2020

<b>AWARDS</b>	Graduated with Honor (Outstanding Graduate of Shanghai)	2020
	Hongyi Scholarship	2019
	National Scholarship	2017

## **ACADEMIC SERVICE**

### **External Reviewer for Conferences, Journals**

- International Symposium of Robotics Research (ISRR): 2024
- Conference on Robot Learning (CoRL): 2024
- International Conference on Intelligent Robots and Systems (IROS): 2023, 2024
- Robotics: Science and Systems (RSS): 2024
- International Conference on Robotics and Automation (ICRA): 2024
- International Conference on Learning Representations (ICLR): 2024

### **Teaching Assistant for Computer Science Courses**

- Carnegie Mellon University 16-831: Introduction to Robot Learning (Fall 2024)
- Stanford CS 221: Artificial Intelligence: Principles and Techniques (Spring 2023, Spring 2022, Fall 2021)
- Stanford CS 148: Introduction to Computer Graphics and Imaging (Fall 2022)
- Stanford CS182: Ethics, Public Policy, and Technological Change (Winter 2023, Winter 2022)