

## Education

2020 - **PhD Student**, *Carnegie Mellon University, Robotics Institute.*

Present Advisors: Changliu Liu, Andrea Bajcsy, GPA: 4.17/4.0

2015 - 2019 **BS, Electrical Engineering and Computer Science**, *University of California, Berkeley.*  
Cumulative GPA: **3.86**/4.0, Graduated with Honors

### Selected Coursework.

Robotics, Optimal Control, Adaptive Control, Convex Optimization, Human-Robot Interaction, Linear Systems, Nonlinear Systems, Machine Learning, Deep Learning, Computer Vision, Physics

## Preprints

- [9] T. Wei, L. Ma, **R. Pandya**, C. Liu, "Robust Safe Control with Multi-Modal Uncertainty," *arXiv preprint*, 2024.

## Peer-Reviewed Publications

- [8] **R. Pandya\***, M. Zhao\*, C. Liu, R. Simmons, H. Admoni, "Multi-Agent Strategy Explanations for Human-Robot Collaboration," *International Conference on Robotics and Automation (ICRA)*, 2024.
- [7] **R. Pandya\***, Z. Wang\*, Y. Nakahira, C. Liu, "Towards Proactive Safe Human-Robot Collaboration via Data-Efficient Conditional Behavior Prediction," *International Conference on Robotics and Automation (ICRA)*, 2024.
- [6] **R. Pandya**, T. Wei, C. Liu, "Multimodal Safe Control for Human-Robot Interaction," *American Control Conference (ACC)*, 2024.
- [5] **R. Pandya**, C. Liu, "Safe and Efficient Exploration of Human Models during Human-Robot Interaction," *International Conference on Intelligent Robots and Systems (IROS)*, 2022.
- [4] **R. Pandya\***, S.H. Huang\*, I. Huang\*, A.D. Dragan, "Nonverbal Robot Feedback for Human Teachers," *Conference on Robot Learning (CoRL)*, 2019 (**oral, acceptance 5.3%**).
- [3] **R. Pandya**, S.H. Huang, D. Hadfield-Menell, A.D. Dragan, "Human-AI Learning Performance in Multi-Armed Bandits," *Conference on Artificial Intelligence, Ethics, and Society (AIES)*, 2019.
- [2] A. Nagabandi, G. Yang, T.H. Asmar, **R. Pandya**, G. Kahn, S. Levine, R. Fearing, "Learning Image-Conditioned Dynamics Models for Control of Under-Actuated Legged Millirobots," *International Conference on Intelligent Robots and Systems (IROS)*, 2018 (**best paper award finalist**).
- [1] A. Bestick, **R. Pandya**, R. Bajcsy, A.D. Dragan, "Learning Human Ergonomic Preferences for Handovers," *International Conference on Robotics and Automation (ICRA)*, 2018.

## Awards and Honors

2020 **National Science Foundation Graduate Research Fellowship**, (15% acceptance).

11/2019 **Oral Presentation at CoRL 2019**, (5.3% acceptance).

10/2018 **Best Paper Award Finalist at IROS 2018**, (of 1000 accepted papers).

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\*equal contribution

## Mentorship and Teaching

- Spring 2023 **Human-Robot Interaction - Foundations**, *Teaching Assistant*.  
Spring 2022 **Human-Robot Interaction - Foundations**, *Teaching Assistant*.  
2021 - 2022 **CMU Graduate Application Support Program**, *Mentor*.  
2021 - 2023 **CMU Undergraduate AI Mentoring**, *Mentor*.  
Fall 2018 **Intro to Robotics**, *Undergraduate Student Instructor*.  
Summer 2018 **Interact Lab Summer Internship**, *Mentor*.  
Spring 2019 **Feedback Control Systems**, *Reader/Tutor*.  
Spring 2018 **Designing, Visualizing and Understanding Deep Neural Networks**, *Reader/Tutor*.

## Research / Professional Experience

- 2020 - Present **CMU Robotics Institute**, *Advisors: Prof. Changliu Liu, Prof. Andrea Bajcsy*, Pittsburgh, PA.  
Working influence-aware safe control under uncertainty around humans  
2019 - 2020 **Ericsson (Global AI Accelerator)**, *Data Scientist*, Santa Clara, CA.  
Used multi-agent deep reinforcement learning algorithms to tune parameters in a radio network  
2018 - 2019 **Interact Lab**, *PI: Prof. Anca Dragan*, Berkeley, CA.  
Worked on modeling how physical actions can communicate and gather information  
2016 - 2017 **Human-Assistive Robotic Technologies Lab**, *PI: Prof. Ruzena Bajcsy*, Berkeley, CA.  
Worked on learning human ergonomic preferences in human-robot object handovers

## Languages/Technical Skills

- Human English, Gujarati, Japanese  
Robot Python, MATLAB, Julia, C, Java, Ruby, Linux / command line  
Libraries Numpy / Scipy / Pandas, PyTorch, Robot Operating System (ROS), Rllib, PsiTurk  
Hardware Kinova Gen3, Baxter/Sawyer, Turtlebot, FANUC LR Mate 200iD