Bryce Ikeda

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Education

University of North Carolina — Chapel Hill, NC
Doctor of Philosophy in Computer Science — May 2025
Advisor: Dr. Daniel Szafir

University of Rochester — Rochester, NY
Master of Science in Electrical and Computer Engineering — May 2020
Advisor: Dr. Thomas Howard

University of Rochester — Rochester, NY
Bachelor of Science in Electrical and Computer Engineering — May 2019
Cum Laude

Honors & Awards

Best Paper Honorable Mention, HRI 2024

Best Paper Award, CompEd 2023

HRI Pioneer 2022
A highly selective workshop seeking to foster creativity and collaboration among young researchers in HRI

CoSIDA Academic All-America Team 2018

Scholar All-America Team 2017–2018

Conference Publications

[1] **Bryce Ikeda**, Mark Higger, Christina Soyoung Song, and J. Gregory Trafton. **Overlapping Social Navigation Principles: A Framework for Social Robot Navigation**. *International Conference on Robotics and Automation (ICRA)*. 2025. 39% Acceptance Rate.

[2] **Bryce Ikeda**, Maitrey Gramopadhye, LillyAnn Nekervis, and Daniel Szafir. **MARCER: Multimodal Augmented Reality for Composing and Executing Robot Tasks**. *Conference on Human-Robot Interaction (HRI)*. 2025. 25% Acceptance Rate.

[3] Yue Yang, **Bryce Ikeda**, Gedas Bertasius, and Daniel Szafir. **ARCADE: Scalable Demonstration Collection and Generation via Augmented Reality for Imitation Learning**. *Conference on Intelligent Robots and Systems (IROS)*. 2024. 47% Acceptance Rate.

[4] Michael E. Walker, Maitrey Gramopadhye, **Bryce Ikeda**, Jack Burns, and Daniel Szafir. **The Cyber-Physical Control Room: A Mixed Reality Interface for Mobile Robot Teleoperation and Human-Robot Teaming**. *Conference on Human-Robot Interaction (HRI)*. 2024. 24.7% Acceptance Rate **(Honorable Mention)**.

[5] **Bryce Ikeda**, Janine Hoelscher, Ron Alterovitz, and Daniel Szafir. **Guiding the Development of Undergraduate Educational Robotics**. *Conference on Global Computing Education (CompEd)*. 2023. 35% Acceptance Rate **(Best Paper Award)**.

[6] **Bryce Ikeda** and Daniel Szafir. **Advancing the Design of Visual Debugging Tools for Roboticists (HRI)**. *Conference on Human-Robot Interaction*. 2022. 24.36% Acceptance Rate.

Journal Publications

[1] **Bryce Ikeda** and Daniel Szafir. **PRogramAR: Augmented Reality End-User Robot Programming**. *Journal on Human-Robot Interaction (THRI)*. 2024.

Research Experience

NRC Postdoctoral Research Associate 2025–Present
US Naval Research Laboratory Washington, DC
- Advisor: Dr. J. Gregory Trafton
- Intelligent Systems Section
- Navy Center for Applied Research in Artificial Intelligence

Research Assistant 2020–2025
University of North Carolina Chapel Hill, NC
- Led research focused on designing systems that help end-users understand and interact with robots
- Designed and evaluated novel augmented reality robot programming and debugging tools for end-users
- Coordinated and conducted multi-site user studies resulting in conference publications

Research Assistant Summer 2023
US Naval Research Laboratory Washington, DC
- Advisor: Dr. J. Gregory Trafton
- Investigated participants' perceptions of an autonomous socially navigating robot
- Implemented legibility, social norms, and safety on the Spot robot, a quadruped mobile robot

Academic Service

Area Chair
HRI Late Breaking Reports 2025

General Chair
HRI Pioneers at the ACM/IEEE International Conference on Human-Robot Interaction 2023

Organizer
HRI Workshop on Virtual, Augmented, and Mixed Reality for Human-Robot Interaction 2023, 2024

Teaching Experience

Introduction to Robotics, Teaching Assistant Spring 2025
Virtual Reality and Game Development, Teaching Assistant Fall 2024
Introduction to Virtual Reality and 3D Graphics, Teaching Assistant Spring 2023
Starting Computing, Teaching Assistant Fall 2021
Fundamentals of Human-Computer Interaction, Course Manager Spring 2021
Senior Capstone, Teaching Assistant Fall 2020, Spring 2021
C/C++ Programming, Teaching Assistant Spring 2020
Circuits and Signals, Teaching Assistant Fall 2019

Technical Skills

Languages: C#, C++, Python
Developer Tools: Unity, ROS, WSL 2, HoloLens 2, Arduino
Methods: Interviews, Thematic Analysis, User-Centered Design

Leadership

Student Representative 2022–2024
Computer Science Student Association, University of North Carolina

Head Coach 2022–Present
Triangle United Youth Development Academy

Student Alumni Ambassador 2017–2020
University of Rochester
- Selected to assist with on-campus, local and regional alumni events
- Provided current student perspective to the Board of Trustees and Alumni

Assistant Coach 2019
Varsity Men's Soccer Team, University of Rochester

Team Captain 2017–2018
Varsity Men's Soccer Team, University of Rochester