

JUSTIN WASSERMAN

Homepage: jbwasse2.github.io ◇ Email: jbwasse2@illinois.edu

Interests: Robotics, Embodied Agents, Computer Vision

EDUCATION

University of Illinois at Urbana-Champaign

August 2019 - Present

Ph.D. in Electrical and Computer Engineering

· Advisor: [Girish Chowdhary](#)

University of Illinois at Urbana-Champaign

August 2014 - May 2019

Bachelor of Sciences (B.S) in Computer Engineering

· Advisor: [Steven LaValle](#)

RESEARCH EXPERIENCE

Carnegie Mellon University

March 2023 - Present

Research Assistant

Pittsburgh, PA

· Mentors: [Unnat Jain](#), [Abhinav Gupta](#)

CONFERENCE PUBLICATIONS

Exploitation-Guided Exploration for Semantic Embodied Navigation

J. Wasserman, G. Chowdhary, A. Gupta, U. Jain

ICRA 2024

[\[project\]](#) [\[arXiv\]](#)

Best Paper at NeurIPS 2023 Robot Learning Workshop

Under-Canopy Dataset for Advancing Simultaneous Localization and Mapping in Agricultural Robotics

J. Cuaran, A. Velasquez, M. Gasparino, N. Uppalapati, A. Sivakumar, **J. Wasserman**, M. Huzaifa, S. Adve, G. Chowdhary

International Journal of Robotics Research (IJRR), 2023

[\[project\]](#)

Last-Mile Embodied Visual Navigation

J. Wasserman, K. Yadav, G. Chowdhary, A. Gupta, U. Jain.

Conference on Robot Learning (CoRL), 2022

[\[project\]](#) [\[pdf\]](#)

A Hardware and Software Testbed for Underactuated Self-Assembling Robots

A. Nilles, **J. Wasserman**, A. Born, C. Horn, J. Born, S. LaValle.

IEEE International Symposium on Multi-Robot and Multi-Agent Systems (MRS), 2019

[\[pdf\]](#)

TALKS AND AWARDS

CMU Robot Learning Retreat

2023

Exploitation-Guided Exploration for Semantic Embodied Navigation

EAI Seminar, Facebook AI Research Labs (FAIR)

2022

Last-Mile Embodied Visual Navigation

[\[slides\]](#)

Undergraduate Research Symposium, UIUC

2019

Controlling, Modeling, and Scaling Underactuated, Non-deterministic Robot Structures

Leung Student Venture Fund Award

2019

· Awarded \$1000 to support research in robotics for undergraduate thesis.

INDUSTRY EXPERIENCE

EarthSense

May 2019 - August 2019

Deep Learning Intern

Champaign, IL

- Applied deep learning techniques to agriculture data to assist the TerraSentia robot in localization and analysis of data.

Arity

January 2018 - May 2018

Software Engineering Intern

Chicago, IL

- Translated high-level motion data from a car to movement on a testbed robot to create a platform to demonstrate the captured motion data.

Yaskawa America Inc.

May 2016 - January 2017

Applications Engineering Co-Op

Waukegan, IL

- Built software library for motion applications for gantries, Cartesian robots, robotic arms, and other robotics applications.

TECHNICAL STRENGTHS

Computer Languages Computing

Python, Shell Scripting, C++, C, IEC 61131-3
Pytorch, ROS, Linux, Git, Vim, L^AT_EX

TEACHING

ECE 110

Spring 2022

Teaching Assistant

Urbana-Champaign, IL

- Led and supervised four 20-student lab sections.

ENG 298 LRM

Fall 2015, Fall 2017

Teaching Assistant

Urbana-Champaign, IL

- Taught collegiate students how to mentor middle school-aged students in Lego robotics and First Tech Competition.
- Communicated with local teams, coaches, and students to organize mentorships.

SERVICE

Reviewer

- IROS 2023, NeurIPS 2023, ICLR 2024, ICRA 2024, CVPR 2024, ICML 2024
- RoboAdapt Worksop CoRL 2022 [[webpage](#)], Robot Learning Workshop NeurIPS 2023 [[webpage](#)]

Academic Services

- CSL Student Conference 2021 Robotics Chair [[webpage](#)]
- CSL Student Conference 2020 Reception Chair [[webpage](#)]

Mentoring

- [Ruben Dorian Serrano](#) (BS at UIUC → Amazon)
- [FIRST Robotics](#) : Mentored many undergraduates, high schoolers, and middle schoolers in competitive robotics.