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

Skild AI November 2023 - Present
Research Scientist *Pittsburgh, PA*
· Mentors: Abhinav Gupta, Deepak Pathak

Carnegie Mellon University March 2023 - Present
Research Assistant *Pittsburgh, PA*
· Mentors: Unnat Jain, Abhinav Gupta

PREPRINTS

Learned State-Estimation for Legged Robots
J. Wasserman, A. Agarwal, R. Jangir, G. Chowdhary, D. Pathak, A. Gupta
In Submission

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 (oral)

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
Internation 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	Python, Shell Scripting, C++, C, IEC 61131-3
Computing	Pytorch, ROS, Linux, Git, Vim, LaTeX

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, ICRA, CoRL, NeurIPS, ICLR, ICML, CVPR
· 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 undegraduates, high schoolers, and middle schoolers in competitive robotics.