

# JUSTIN WASSERMAN

Homepage: [jbwasse2.github.io](https://jbwasse2.github.io) ◇ Email: [jbwasse2@illinois.edu](mailto: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 - November 2023

*Research Assistant*

*Pittsburgh, PA*

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

## CONFERENCE PUBLICATIONS

---

Legolas: Deep Leg-Inertial Odometry

**J. Wasserman**, A. Agarwal, R. Jangir, G. Chowdhary, D. Pathak, A. Gupta

*Conference on Robot Learning (CoRL), 2024*

[\[project\]](#)

Exploitation-Guided Exploration for Semantic Embodied Navigation

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

*IEEE International Conference on Robotics and Automation (ICRA), 2024*

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

*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

*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.

## SERVICE

---

### Reviewer

- IROS, ICRA, RA-L, CoRL, NeurIPS, ICLR, ICML, CVPR
- RoboAdapt Workshp 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

- [Shivani Kamtikar](#) (PhD at UIUC : Publication in submission.)
- [Ruben Dorian Serrano](#) (BS at UIUC → Amazon)
- **FIRST Robotics** : Mentored many undergraduates, high schoolers, and middle schoolers in competitive robotics.
- Various work supporting the women of Afghanistan.

## 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, L<sup>A</sup>T<sub>E</sub>X

## 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.