

# JUSTIN WASSERMAN

Homepage: [jbwasse2.github.io](http://jbwasse2.github.io) ◇ Email: [jbwasse2@illinois.edu](mailto:jbwasse2@illinois.edu)

Interests: Robotics, Embodied Agents, Computer Vision

## EDUCATION

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**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

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**Carnegie Mellon University**

March 2023 - Present

*Research Assistant*

*Pittsburgh, PA*

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

## WORKSHOP AND IN-PREPERATION PUBLICATIONS

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Exploitation-Guided Exploration for Semantic Embodied Navigation

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

*arXiv Pre-print 2023*

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

*Neurips 2023 Robot Learning Workshop (Oral Talk)*

## CONFERENCE PUBLICATIONS

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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

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**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

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- 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

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**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

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**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

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**Reviewer**  
 · IROS 2023, NeurIPS 2023, ICLR 2024, ICRA 2024, CVPR 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.