

JUSTIN WASSERMAN

(847) · 708 · 2771 ◇ jbwasse2@illinois.edu

EDUCATION

University of Illinois at Urbana-Champaign

PhD in Electrical and Computer Engineering

August 2019 - Present

Urbana-Champaign, IL

- Advisor: Dr. Girish Chowdhary

University of Illinois at Urbana-Champaign

B.S in Computer Engineering

August 2014 - May 2019

Urbana-Champaign, IL

- Advisor: Dr. Steven LaValle
- Cumulative GPA: 3.61/ 4.00

RESEARCH EXPERIENCE

DASLAB (Dr. Girish Chowdhary)

Research Assistant

August 2019 - Present

Urbana, IL

- Interested in utilizing computer vision techniques to create map representations for assisting mobile robots in visual navigation tasks.
- Demonstrated research in utilizing topological maps in both the real world and in simulation.

VRMSL (Dr. Steven LaValle)

Undergraduate Researcher

January 2017 - August 2019

Urbana, IL

- Created simulator in Gazebo to collect data on the interaction of simple, non deterministic, self-assembling, “bouncing” robots.
- Maintainer and creator of “kronprod” library, an open source library available on Anaconda.
- Implemented data analysis of captured robotics data using Python and CUDA.

DASLAB (Dr. Girish Chowdhary)

Undergraduate Researcher

May 2018 - August 2019

Urbana, IL

- Created CNN trained on robot’s camera data to assist in autonomous navigation.
- Implemented framework to enable nightly end to end testing on the TerraSentia robot. This involves interactions between the software on the robot, Gazebo, our code repositories, and a tablet.

PUBLICATIONS

J. Wasserman, G. Chowdhary. U. Jain. An Image Goal Navigation Paper in European Conference on Computer Vision (ECCV), 2022. Under double blind review.

A. Nilles, J. Wasserman, A. Born, C. Horn, J. Born, S. LaValle “A Hardware and Software Testbed for Underactuated Self-Assembling Robots” in IEEE International Symposium on Multi-Robot and Multi-Agent Systems (MRS), 2019

AWARDS AND HONORS

Leung Student Venture Fund Award

UIUC ECE Department

2019

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

INDUSTRY EXPERIENCE

EarthSense

Deep Learning Intern

May 2019 - August 2019

Champaign, IL

- Applied deep learning techniques to agriculture data to assist robot in localization and analysis of data.
- Created pipeline to allow for streamlined training and testing of deep learning models for agriculture setting.

Arity

Software Engineering Intern

January 2018 - May 2018

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.
- Created device that simulates car trips through the OBD port. Also created web interface to allow developers to interact with the device. Resulted in developers being able to test firmware on thousands of different real and simulated car trips.

Yaskawa America Inc.

Applications Engineering Co-Op

May 2016 - January 2017

Waukegan, IL

- Built software library for motion applications for gantries, Cartesian robots, robotic arms, and other robotics applications.
- Programmed and presented interface and gantry that was used as a demonstration at the International Manufacturing Trade Show.
- Created test cases and documentation for motion and math code, and different applications that Yaskawa supports.

TECHNICAL STRENGTHS

Computer Languages

Python, Shell Scripting, C++, C

Computing

Linux, Vim, Pytorch, ROS, Git, L^AT_EX

TEACHING ASSISTANCE EXPERIENCE

ENG 298 LRM

Teaching Assistant

Fall 2015, Fall 2017

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.