Justin Wasserman

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EDUCATION

University of Illinois at Urbana-Champaign

Urbana-Champaign, IL

■ Bachelor of Science (B.S.) in Computer Engineering, minor in Mathematics

May 2019

• James Scholar Honors

• Cumulative GPA: 3.58/ 4.00

RESEARCH EXPERIENCE

VRMSL (Professor Steven LaValle) Undergraduate Researcher

Jan 2017 – Present

Champaign, IL

- Created simulator in Gazebo to collect data on the interaction of simple, non deterministic, self-assembling, "bouncing" robots.
- Implemented data analysis of captured robotics data using Python, and CUDA.

DASLAB (Professor Girish Chowdhary) Undergraduate Researcher

May 2018 – Present

Champaign, IL

- Used 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.

WORK EXPERIENCE

Arity

Software Engineering Intern

Chicago, IL

Jan 2018 – May 2018

- 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.

Waukegan, IL

Applications Engineering Co-Op

May 2016 - Jan 2017

- 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.

Cornelius

Glendale Heights, IL May 2017 – Aug 2017

Computer Engineer Intern

- Created Python code to communicate with customer device using a Raspberry Pi. Raspberry Pi then communicates with server to allow users to read data about their device from website.
- Implemented hardware and software for new valve technology by controlling electronics through a feedback loop. Resulted in a more tamper proof machine that can allow for more soft drink options due to size of valve.

PUBLICATIONS

• A. Choudhuri, J. Wasserman, J. Sun, and G. Chowdhary, "Autonomous Robot Based Crop Stem Width Estimation In Cluttered Agricultural Fields" (in revision, Submitted to IROS 2019)

AWARDS

Leung Student Venture Fund Award

• Awarded to support research in self-assembling robotics for senior thesis.

Feb 2019

TEACHING ASSISTANCE EXPERIENCE

ENG 298 LRM

Fall 2015, Fall 2017

- 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.