

Ethan J. Park

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Portfolio: ethanjpark.github.io

Education

Master of Science in Robotics, Northwestern University, Evanston, IL **2018 – 2019**

Winter Project: *Plume Tracing using Behavior-Based Planning in UUV Simulator*

Bachelor of Science in Computer Science, Northwestern University, Evanston, IL **2014 – 2018**

Relevant Coursework

Robotics

Active Learning in Robotics

Soft Robotics

Modeling and Synthesis of Cyber-Physical Systems

Connected and Autonomous Vehicles

Embedded Systems in Robotics

Robotic Manipulation

Swarms and Multi-Robot Systems

Applied Mechatronics: Quadrotors

Computer Science

Artificial Intelligence

Machine Learning

Design and Analysis of Algorithms

Relevant Experience

Intern

June 2019 – August 2019

Monterey Bay Aquarium Research Institute

- Created ROS simulations using the Unmanned Underwater Vehicle Simulator of collaborative, multi-AUV scenarios for MBARI's Long Range AUVs.
 - (Intern Project: *Developing a Simulator for Collaborating LRAUVs*)
- Boat ops: launched and retrieved long-range AUVs deployed in Monterey Bay on *R/V Paragon*, aided in seafloor mapping test of Dorado-class AUVs on *R/V Rachel Carson*.

Software Lead

Sept. 2014 – June 2018

Northwestern Solar Car Team

- Implemented CAN bus communication in C/C++ between Tritium IQ battery management system, Wavesculptor20 motor controller, and two Arduino Dues.
- Wrote and maintained Arduino driver controls code; updated and controlled vehicle state based on various pin inputs and outputs and CAN communications with multiple other nodes
- Programmed driver control panel and LCD driver display, wired to an Arduino Due.

Undergraduate Research Assistant

March 2015 – May 2015

Argallab, Northwestern University

- Ran Gazebo simulations using ROS for semi-autonomous wheelchair
- Debugged wheelchair doorway detection C++ code

Skills

Programming Languages: Python, C/C++, C#, HTML, CSS, Javascript, PHP

Software and Tools: ROS, MATLAB, Ubuntu/Linux, Git, LaTeX, Mathematica

Hardware: Arduino, PIC32, mechatronics

Foreign Languages: Korean (fluent), German (basic proficiency)