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)