

# Ethan J. Park

Email: park.ethan@u.northwestern.edu

Portfolio: ethanjpark.github.io

## Education

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**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

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### 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

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### 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.

### Software Developer Intern (Remote)

May 2017 – August 2017

*Skive It, Inc*

- Implemented user/device data telemetry for website and mobile app in JS and PHP
- Modified video-processing engine to show real-time style and mood in video
- Tested Bluetooth communications and robot functions on Sphero robot

## Skills

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**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)