Ethan J. Park

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EDUCATION

Northwestern University, Evanston, IL
Master of Science in Robotics — December 2019 (Expected)
Bachelor of Science, Computer Science — June 2018

COURSES

Robotic Manipulation
Design & Analysis of Algorithms
Artificial Intelligence, Machine Learning
Embedded Systems in Robotics
Quadrotor Design & Control
Swarms & Multi-Robot Systems

EXPERIENCE

Northwestern Solar Car Team, Evanston, IL
Software Lead & Treasurer — September 2014 – Present

- Implemented vehicle telemetry in Visual Basic to store vehicle data on vehicle-side SQL Server database and transmit via TCP/IP to an external 'client' machine.
- Implemented CAN communication in C++ between Tritium IQ battery management system, Wavesculptor20 motor controller, and two Arduino Dues.
- Wrote and maintained C++ code for an informational LCD and switch/button panel for vehicle control, mounted on an Arduino Due.
- Planned allocation of ~$200,000 multi-year budget among different teams for SC8, the team's new car, and oversaw team's financial accounts.

Skive it, Inc, Evanston, IL
Software Developer Intern (Remote) — May 2017 – August 2017

- Implemented user/device data telemetry in Javascript and PHP using Geolocation API and Apache Cordova plugins for website and app, respectively.
- Created real-time mode showing style and mood on a live video; wrote a video processing engine in Python and PHP code for sending the data to the server.
- Wrote Python code for testing Bluetooth communications and robot functions on Sphero robot.

Rehabilitation Institute of Chicago, Chicago, IL
Undergraduate Research Assistant, Argallab — March 2015 – May 2015

- Ran Gazebo simulations using ROS for semi-autonomous electric wheelchair.
- Debugged wheelchair doorway detection code, written in C++.

ROBOTIS, Seoul, South Korea
Student Intern — June 2013 – July 2013

- Coded a custom velocity profile in C++ for a Dynamixel Pro actuator to mimic bionic motion.
- Built and programmed smartphone-controlled robots that reacted to environmental sensory data.
- Maintained and tested the Tactical Hazardous Operations Robot (THOR) for the DARPA Robotics Challenge Team THOR.

SKILLS Python, C++, ROS, Ubuntu, Git, JavaScript, HTML

LANGUAGES Korean (native)