

Brandon Hung

<https://github.com/BrandonHung343> | <https://brandonh.dev/>

Education

Carnegie Mellon University, Class of 2021

- Major: Electrical and Computer Engineering. Minors: Robotics, Computer Science
- GPA: 3.56
- Relevant Coursework:
 - Control Systems, Analog Circuits, Signal Processing, Digital Design
 - Robot Kinematics, Mobile Robot Algorithms, Artificial Intelligence
 - Computer Systems, Computer Vision, Functional Programming

Work Experience

CMU Biorobotics Lab - Summer Research Assistant

- Worked with PhD student to analyze and implement multi-agent path planning algorithm for swarm robots
- Created ROS controllers and designed Gazebo URDFs to simulate subterranean robots

Activities

CMU Robotics Club Officer - Developer

Fall 2018-Present

- Maintains server and website infrastructure to publicize club activities
- Mentors 2 student personal projects using club resources

TartanHacks - Competitor

Spring 2019

- Worked in team of 3 to create VR Fruit Ninja on Oculus Go using Unity

Red Robot Hackathon - Organizer

Fall 2019-2020

- Organized parts and built website for CMU Red Robot Hackathon: [link](#)

Projects

Introduction to Programming Final Project

Fall 2018

- Developed platform to control robotic arm; [link](#)
- Incorporated computer vision tracking and voice control for human robot interface

Automated Forklift Software Stack

Fall 2020

- Worked in group of three to build full software stack for mini automated forklift
- Implemented localization, object detection, path planning to detect /pick up pallets

Autonomous Terrarium for Indoor Farming

Fall 2020

- Worked in group of three on robotic greenhouse to grow radishes indoors
- Used AI to solve constraint-based scheduling problem for watering/lighting plants
- Implemented machine learning monitor to evaluate plant health

Relevant Skills

- **Computer:** Python, ROS, Linux, C, TensorFlow, OpenCV, MATLAB, SML
- **Electrical:** Digital and analog circuit design, SystemVerilog
- **Mechanical:** SolidWorks, laser cutting, 3D printing, machining
- **Mechatronics:** Arduino, Raspberry Pi, rapid prototyping