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 Robots, Artificial Intelligence, Human-Robot Interaction
  - Computer Systems, Computer Vision, Functional Programming, Data Structures

Work Experience

CMU Biorobotics Lab - Research Assistant **Fall 2017-Summer 2018**

- 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 student personal projects

TartanHacks - Competitor **Spring 2019**

- Recreated VR Fruit Ninja on Oculus Go using Unity

Red Robot Hackathon - Organizer **Fall 2018-Spring 2019**

- Organized event 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 2019**

- Built full software stack for mini automated forklift over course of semester
- Implemented localization, object detection, path planning to detect /pick up pallets

Autonomous Terrarium for Indoor Farming **Fall 2019**

- Created AI system for to monitor and grow radishes in robotic greenhouse

Neural Network for Fast Content-Preserving HDR Image Processing **Fall 2020**

- Combined artistic style transfer with HDRnet to produce HDR images that recreate poorly exposed content

For smaller projects, please visit my website at https://brandonh.dev/

Relevant Skills

- ***Computer***: Python, ROS, Linux, C, OpenCV, MATLAB,
- ***Electrical***: Digital and analog circuit design, SystemVerilog, FPGA, microprocessors
- ***Mechanical***: SolidWorks, laser cutting, 3D printing, machining, rapid prototyping