

web developer and roboticist

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### education

### Carnegie Mellon University

BS in Computer Science, Robotics. Graduation: May 2017.

Pittsburgh, PA

2015-now. Pittsburgh, PA

2015. Redmond, WA

### languages extensive

Javascript CSS, HTML Bash

C

# proficient

LaTeX Matlab

## **Microsoft Corporation**

• Implemented generic Audio ETW event classification framework (C#).

# technologies

extensive

Node.is React Redux

Linux proficient

Gulp

# Nginx

# hackathons

Battle of the Hacks MHacks IV HackPrinceton HackCMU

### talks **CClub Talk Series**

Docker and Fig 101 CoffeeScript 101 Node.js 101

#### CrashCourse 2015

Intro to HTML & CSS Advanced Vim Usage WebDevWeeks 2015

Deploying Your Site

## tech experience **HEBI Robotics. Inc.**

Software Engineering Intern, web services and firmware.

• Created platform to manage and deploy robot firmware (React/Node.js).

- Implemented decryption utilities in robot firmware (C).

# Software Engineering Intern, Audio Quality

• Voted best intern project, OSG SiGMA

### ScottvLabs Director of Operations

• Operations: run and maintain ScottyLabs' servers and APIs.

- Tech: lead dev for TartanHacks ('15, '16), Print@ScottyLabs, APIs@ScottyLabs
- Leadership: lead three separate teams of students for the projects.

### **Biorobotics Laboratory**

Embedded Systems, System Administrator. Working under Dr. Howie Choset

- Administrative work: managing new members and overseeing the JumpingBot group.
  - Firmware development: rewrote firmware architecture to improve modularity, applied to all of the robotic platforms in the lab (C++).

# teaching experience

### (16-384) Robot Kinematics and Dynamics

- Wrote extensive background materials for student use.
- Designed and tested several hardware labs to provide hands-on experience.
- Held office hours and grading sessions.

#### (16-311) Introduction to Robotics

- Updated homeworks with additional background materials and a standard presentation.
- Designed and ran a computer vision lab, with rapid feedback from autograding.
- Held office hours, ran weekly labs, and grading sessions.

# select projects

### APIs@ScottyLabs

- Designed and developed several APIs for CMU community data access.
- Released dining, directory, and course data for student use (Node.is, Google AppScript).
- Deployed the services and maintained uptime for long-term use.

#### TartanHacks Infrastructure

- Built hacker registration, notifications, and resume aggregation (React, ES6).
- Deployed and managed operations with Nginx.

**SEASnake** 

- Rewrote existing firmware architecture to use a modular driver system (C++).
- Applied the architecture to all of the robotics platforms in the lab.
- Implemented virtual x86 module for unit-testing firmware.

#### **JumpingBot**

- Project manager: leading group of 5 engineering students.
- Developing firmware, prototyping with Arduino and 3D printed parts (C).