# William O'Gara

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### Education

**Brown University** Providence, RI Class of 2019 GPA: 3.3

2015-2019

- B.S. in Electrical Engineering
- Relevant Coursework: Computer Systems (C), Algorithms and Data Structures (Python), Design of Robotics Systems, Object-Oriented Programming (Java), Scientific Computing and Problem Solving (MATLAB), Communications Systems

## Employment and Research Experience

#### Humanity Centered Robotics Initiative Providence, RI

2018-2019

Robotics Research Assistant

- Developed an electrically assisted walker for elderly patients
- Created an easy-to-use web application to facilitate video calling with family and doctors
  -built a video conferencing application using free Jitsi REST API (HTML, JavaScript in Node.Js)

#### BlueJeans Network Mountain View, CA

2018

Software Engineering Intern, API Team

- Created a software development kit for messaging applications from existing REST APIs
- Developed a remote pan/tilt/zoom application (HTML, JavaScript in Node.Js, C#)
  - -designed a web application (JavaScript in Node.JS) to send camera controls (JSON formatted) using my SDK
  - -wrote a Windows application (C#) to pan/tilt/zoom the camera
  - -connected the above two applications through a TCP socket
  - -demonstrated application for interested clients
- Frequently spoke with customers to meet their needs in application development
  - -researched specific CPU requirements to run company software reliably
  - -suggested products to clients based on their performance goals

### **Introduction to Engineering** *Providence, RI*

2016-2017

Teaching Assistant and Mentor

- Held weekly sessions to instruct machine use in the Brown Design Workshop
- Helped students with anything from academic concerns to adjusting to college life
- Administered and graded projects assigned by the course
- Evaluated printed MATLAB scripts for functionality

## Community Involvement

### Brown IEEE Student Chapter Providence, RI

2015-2019

President

- Instructed new members on relevant skills such as soldering, programming, and wiring
- Directed club meetings with topics like career development, research opportunities, or pertinent technical skills
- Organized the Brown Robotics Olympiad
  - -inter-university competition where teams developed a robot to autonomously navigate a maze (16x16 square grid)
- Constructed and programmed a robot to autonomously navigate a maze (before beginning to organize competition)
  - -fashioned my robot using an Arduino microcontroller, 2 DC motors, an H-Bridge, and 6 infrared proximity sensors
  - -wrote a DFS algorithm to traverse the maze (C) representing the maze as an array of room structs

#### **Brown Club Soccer**

2015-2019

Lifeguard Captain Providence, RI

2013-2016

- Supervised lifeguards at a public beach from May to June
- Certified in First Aid and AED

## **Skills**

### **Spanish**

### **Computer Programming**

- REST API development and utilization
- Java, JavaScript, Python, C, C++, MATLAB