

# Max Davidowitz

781.325.6367 • max.davidowitz@gmail.com

Boston, MA

Mechanical engineer and roboticist, experienced in hardware design.

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## ► EDUCATION

### **Boston University College of Engineering, Boston, MA**

Bachelor of Science, Mechanical Engineering, May 2019

## ► SKILLS

### **Engineering Software**

SolidWorks  
Autodesk Fusion 360  
Creo Parametric  
PDM/PLM

### **Robotics**

Robot Operating System (ROS)  
C++  
Gazebo  
Arduino

### **Machining**

Laser cutting  
Manual milling  
Turning  
CAM software

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## ► EXPERIENCE

### **Vecna Robotics**

*Mechanical Engineer*

*February 2020 - November 2020*

- Evaluated dynamics of a robotic system for a customer safety assessment.
- Designed and fabricated electromechanical test fixtures.
- Calculated load requirements and selected motors for a prototype robotic system.
- Designed and fabricated mounting solutions for sensors, electrical and compute components.
- Defined mechanical requirements for robot manufacturing integration with an OEM partner.

*Technical Assistant*

*August 2019 - January 2020*

- Developed CAD models in SolidWorks and created drawings for manufacture.
- Communicated mechanical requirements to vendors for product quotes.

### **Amazon Robotics**

*June 2019 - July 2019*

*Hardware Development Intern*

- Developed software using ROS for an experimental robotic system and warehouse environment.
- Implemented 1D time-of-flight distance sensors for cliff avoidance.
- Implemented communication between the single board computer and microcontrollers with I<sup>2</sup>C.

*Capstone Project: Multi-Robot System for Cooperative Object Transport*

*September 2018 - May 2019*

- Designed a human-collaborative multi-robot system capable of transporting objects of various size.
- Wrote a technical proposal and received funding from Amazon Robotics to develop a prototype.
- Led the design of the drivetrain and chassis. Built two iterations of prototypes to evaluate and improve design, and finalized three robots to test system performance.
- Won department award for [most outstanding capstone project in mechanical engineering](#).

### **sustainability@BU**

*June 2016 - June 2018*

*Energy Efficiency Engineering Intern*

- Project lead on BU Brownstone Energy Efficiency Pilot to optimize building heating control, which reduced fuel usage in a brownstone dormitory by 30%.
  - Calibrated system offsets by analyzing room temperature distribution and boiler controller data.
  - Determined cost-effective heating solutions by collecting airflow data and modeling for heat loss.
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## ► LEADERSHIP & ACTIVITIES

Team Liaison, Boston University Consulting Group Strategy Lab *Fall 2018*

Community Outreach Coordinator, Boston University Myanmar Student Association *2016-2017*

Drum Line in Boston University Marching and Pep Band *2015-2018*