# Max Davidowitz

781.325.6367 | max.davidowitz@gmail.com | <a href="https://mdavidowitz.github.io/\_portfolio/">https://mdavidowitz.github.io/\_portfolio/</a> | Boston, MA Mechanical engineer and roboticist, experienced in hardware design and testing.

### ► SKILLS

Engineering SoftwareRoboticsFabricationSolidWorksRobot Operating System (ROS)Laser cuttingFusion 360Python3D printing (FDM/SLA)Creo ParametricArduinoMilling and TurningPDM/PLMLinuxTIG Welding

### ► EXPERIENCE

### SharkNinja

Senior Mechanical Engineer - Robotics

January 2025 - Present

- Lead US engineer on 2026 robot platform.
- Define architecture and test plan for proof of concept prototypes.

# Mechanical Engineer - Robotics

March 2021 - January 2025

- Lead US engineer on mopping systems for consumer floor care robots.
- Optimize actuator control parameters and hardware for cleaning, navigation and product KPIs.
- Rapidly prototype electromechanical hardware concepts and test fixtures.
- Root cause hardware issues from units in the field, internal testing and manufacturing lines.
- Manage system development testing in Boston, Alabama, Florida, Shenzhen, Suzhou, and Beijing.
- DFMA and DFMEA on CAD models in Creo for injection molded parts and assemblies, from proof of concept through mass production.

#### Rotate8

Engineer - Contract

December 2020 - May 2021

- Worked on the joyRide, a single-seater electric vehicle.
- Built a functional prototype by hacking together two e-scooters.
- Mounted and connected batteries and motor control components to run an existing prototype.
- Designed, fabricated and tested steering and stability features to an existing prototype.

# Vecna Robotics

Mechanical Engineer

February 2020 - November 2020

- Evaluated dynamics of a robotic warehouse system for a customer safety assessment.
- Designed and fabricated electromechanical test fixtures.
- Calculated load requirements and selected motors for a prototype robotic warehouse 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.

## **►** EDUCATION

## Boston University College of Engineering, Boston, MA

Bachelor of Science, Mechanical Engineering, May 2019

#### ► RESEARCH

Capstone Project: Multi-Robot System for Cooperative Object Transport

• Won department award for most outstanding capstone project in mechanical engineering.

Energy Efficiency Engineering Intern, sustainability@BU June 2016 - June 2018

Reduced fuel usage in a brownstone dormitory by 30%.