Max Davidowitz

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Mechanical engineer and roboticist, experienced in hardware design and testing.

► EDUCATION

Boston University College of Engineering, Boston, MA
Bachelor of Science, Mechanical Engineering, May 2019

► SKILLS

Engineering Software	**Robotics**	**Fabrication**
SolidWorks	Robot Operating System (ROS)	Laser cutting
Fusion 360	Python	3D printing (FDM/SLA)
Creo Parametric	Arduino	Milling and Turning
PDM/PLM	Linux	TIG Welding

► EXPERIENCE

SharkNinja

Mechanical Engineer - Robotics   *March 2021 - Present*
- Lead project engineer on the mopping system for consumer floor care robots across all product lines.
- Optimize and test motor 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^2C.

► LEADERSHIP & ACTIVITIES

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%.

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

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