

Benjamin Bernstein

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Portfolio: <http://benbernstein.me>

Education

University of Pennsylvania, School of Engineering and Applied Science

Philadelphia, PA

Candidate for Master of Science in Engineering: Robotics

May 2019

Graduate GPA: 4.00 / 4.00

Candidate for Bachelor of Science in Engineering

May 2018

Major: Mechanical Engineering and Applied Mechanics

Undergraduate GPA: 3.60 / 4.00

Specialized Coursework: Design of Mechatronic Systems, Intro to Mechanical Design, Machine Design and Manufacturing, Integrated CAD & Manufacturing

Skills

Hardware: Machining, CNC, injection molding, 3D printing, laser cutting, Arduino, circuit design

Software: SolidWorks, SolidCAM, MATLAB, MS Office. Familiar with Mastercam, COMSOL, Altium

Programming: C/C++, G-code, Python, VBA, Bash, JavaScript, HTML, CSS.

Operating Systems: Windows, Mac OS X, Linux

Languages: Hebrew (fluent), Spanish (familiar)

Experience

Axon Enterprise, Inc. (Formerly TASER International)

Scottsdale, AZ

R&D Hardware Engineering Intern – Conducted Electrical Weapons

June 2017 – August 2017

- Developed an injection molded component to be used in TASER weapons. Designed, characterized, and thoroughly tested multiple prototypes while participating in supplier visits, design reviews, and sourcing discussions. Expected production of 200,000 parts annually.
- Assisted in the design, prototyping, testing, and analysis of various TASER cartridge components with the goal of increasing accuracy and reliability.

Fender Musical Instruments Corporation

Corona, CA

Intern - Manufacturing/Mechanical Engineer

May 2016 – July 2016

- Designed and machined tooling for use in guitar manufacturing
- Developed scheduling software that efficiently plans production runs
- Connected CNC machines to the company network for ease of use
- Documented the entire guitar production process throughout the plant
- Performed time studies to determine efficiency of various departments

Kodlab, University of Pennsylvania GRASP Lab

Philadelphia, PA

Research Assistant

February 2015 - Present

- Designed a functional legged robot quadruped and assembled its mechanical and electrical components for research in dynamic legged locomotion
- Performed tests to determine the dynamic capabilities of robotic locomotion
- Side projects include building a robot-mounted motorized camera gimbal, thermal and mechanical characterization of electric motors, finite element analysis (FEA) of structural components for weight reduction, and various rapid prototyping tasks