

# 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

Candidate for Bachelor of Science in Engineering

May 2018

Major: Mechanical Engineering and Applied Mechanics

Cumulative GPA: 3.56 / 4.00

Specialized Coursework: Design of Mechatronic Systems, Intro to Mechanical Design

(SolidWorks), Machine Design and Manufacturing, Integrated CAD & Manufacturing

## Skills

Hardware: Machining, CNC, 3D printing, laser cutting, basic soldering, Arduino, circuit design

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

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

Operating Systems: Windows, Mac OS X, Linux

Languages: Hebrew (fluent), Spanish (familiar)

## Experience

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

Penn Electric Racing, University of Pennsylvania

Philadelphia, PA

Mechanical Team Member

March 2016 - Present

- Manufacturing parts for electric Formula SAE race car, focusing on the suspension
- Assisting with assembling the car and testing its performance

College House Computing, University of Pennsylvania

Philadelphia, PA

Information Technology Advisor

August 2014 – May 2016

- Assisted students in the dorms with connecting to networks, removing viruses, setting up new devices, and general troubleshooting