

# Logan Sweet

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## Education

### Olin College of Engineering

BS Electrical and Computer Engineering  
Graduating May 2018  
GPA 3.63

### Tufts University

School of Engineering 2014  
Gap Year

### Harvard Business School HBX CORE

2015  
Course on fundamental business practices. Topics included business analytics, financial accounting, and economics for managers.

## Projects

### Raytheon Senior Capstone Project

Sep 2017 - May 2018

Working on a team of 5 to use additive manufacturing processes with magnetic inks to improve the efficacy of passive PCB components. We use software modeling and lab testing to evaluate different materials and test vehicles. In the spring, we will develop a more complex RF circuit to test the most promising magnetic materials.

### Differential Difference Amplifier

May 2017

Used a breadboard to measure and LTSpice to simulate three differential difference amplifier circuits using nMOS and pMOS transistors with a partner. Measured incremental output resistance, differential mode voltage gain, and incremental transconductance gain for each.

### Constant Velocity and Inverted Pendulum

May 2017

Created hardware-only circuits to drive a rigid pendulum at a constant velocity and to return to an inverted position with a team of three. Deliverables included a presentation, live demo, and a paper detailing the mathematics behind the control system.

### ASL Glove

Oct 2015 - Dec 2015

Designed and fabricated a glove that interprets American Sign Language Fingerspelling and outputs translated text to a phone via Bluetooth using flex sensors, an accelerometer, and an Arduino. My team of four publicly posted the final design and code so that others can replicate the glove.

## Skills

**Technical:** MATLAB, LTSpice, KiCad, LaTeX, Oscilloscope, Function Generator, Vector Network Analyzer, Time Domain Reflectometer, Arduino, Verilog, Python, C (in progress), SolidWorks, AutoCAD, Keysight PLTS & ADS, Jira, CAM350, Adobe InDesign & Illustrator, ShopBot (CNC router), Laser Cutting

**Leadership:** Rapid Prototyping, Product Management, User-Centered Design, Lean Product Development, Agile Scrum Methodologies, Calibration & Characterization

### Elected Positions:

Freshman class student government representative,  
Student government vice president for finance,  
Senior class student government representative

## Experience

### TE Connectivity

#### Signal Integrity Intern

Harrisburg, PA

May 2017 - Aug 2017

- Designed custom high speed connectors for clients
- Characterized PCB connectors with TDR and VNA
- Established benchmarks for TRL and AFR calibrations and created procedure documentation

### Olin College of Engineering

#### Principles of Engineering Lead Course Assistant

Needham, MA

Fall 2016, Fall 2017

- Assisted faculty members in a project-based mechatronics course
- Held office hours to guide student project development, answer technical and teaming questions, and provide feedback
- Served as lead of 8 student course assistants in 2017: organized meetings, led grading and rubric development, and served as main point of contact for instructors

### MIT Open Style Lab

#### Engineering Fellow

Cambridge, MA

Jun 2016 - Aug 2016

- Designed a custom modular jacket for a quadriplegic client
- Performed materials research on fabric candidates and
- Worked with interdisciplinary team of occupational therapists and fashion designers

### Boston Museum of Science

#### Technical Studio Intern

Boston, MA

Jun 2016 - Aug 2016

- Engaged visitors of all ages in engineering activities
- Created and facilitated new design challenges for the museum

### Phone2Action

#### Product Management Intern

Washington DC

Feb 2016 - May 2016

- Worked with engineering, sales, and customer success teams to streamline the monthly software release process
- Created documentation of new feature requirements and facilitated internal and external product feedback
- Conducted trainings and served as the point of contact for new clients

### Olin College of Engineering Library

#### Summer Intern

Needham, MA

Jun 2015 - Aug 2015

- Worked on a team of students, alumni, and faculty to change the space and culture of use of the Olin library
- Designed, prototyped, and implemented ideas using an agile development strategy

### Vanderbilt University

#### Lab Assistant

Nashville, TN

Jun 2012 - Aug 2012

- Graphene synthesis and nanocarbon properties studies under principal investigator Dr Yaqiong Xu
- Synthesized and analyzed graphene samples
- Presented results at a poster presentation