Logan Sweet

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Education

Olin College of Engineering
BS Electrical and Computer Engineering
Graduating May 2018
GPA 3.65

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 fabricateed 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, Jira, LaTeX, Arduino, Keysight PLTS & ADS, Calibration & Characterization, Verilog, Python, AutoCAD, Vector Network Analyzer, Time Domain Reflectometer, CAM350, SolidWorks, Laser Cutting, Adobe InDesign & Illustrator, ShopBot (CNC router)

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

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
Neehdam, 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 Univeristy
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