

Henry W. Love

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EDUCATION

Massachusetts Institute of Technology - Cambridge, MA

GPA: 4.8/5.0

- **M.Eng. Electrical Engineering**

Expected 2019

MIT 6-A Program with Analog Devices Inc.

- **B.S. Electrical Engineering, Minor in Music**

Class of 2018

Honors: HKN, MIT Arts Scholar

Relevant Coursework: CMOS Analog and Mixed Signal Circuit Design, High Speed Communication Circuits, Power Electronics, Solid-State Circuits, Microelectronic Devices and Circuits, Microcomputer Lab, Digital Electronics Lab, Analog Electronics Lab, Computation Structures

Yorktown High School - Arlington, VA

Class of 2014

GPA: 4.25/4.0

EXPERIENCE

Analog Devices Inc. - IC Design Engineer Intern

June 2018 to present

Custom IC/analog design of a power-scaling, precision instrumentation amplifier using correlated double sampling. Amplifier is designed for applications with particularly low throughput. Project to become M.Eng. thesis.

Analog Devices Inc. - Applications Engineer Intern

June 2017 to August 2017

Investigated solutions for permanent magnet synchronous motor (PMSM) control using field oriented control (FOC). Current controllers were not suitable for the motors in question.

MIT Lincoln Laboratory - Electrical Engineer Intern

June 2016 to August 2016

High-speed PCB design. Design consideration included form factor, controlled impedance lines, and microstrip transmissions lines. Characterized frequency response of circuit using network analyzer and high-speed oscilloscope. Work included PCB fabrication.

HONORS

Member of MIT Eta Kappa Nu (HKN)

2018

Eta Kappa Nu (HKN) is the national honor society for Electrical Engineering and Computer Science, with chapters across the world. The HKN chapter at MIT offers services to enhance the Course 6 community: these include the resume book, tutoring service, underground guide, and social events.

Northern Telecom/BNR Project Award: Best 6.111 Project

2017

Shared with my teammate for Digital Electronics Lab (6.111) final project: FPGA Beethoven, a hardware based system that electronically plays an image of sheet music uploaded to an FPGA.

Intel International Science and Engineering Fair - Finalist

2013

Shared with my teammate for our work on a low budget, high-frequency resonant transformer (Tesla Coil).

National Scholastics Art and Writing - Two time Gold Medal in Ceramics and Glass

2011 and 2014

EXTRACURRICULARS

MIT Formula SAE Team - Electrical Subteam Member

July 2017 to June 2018

Primary person responsible for redesigning the vehicle control unit (VCU) for the all electric MIT FSAE car. VCU was designed around an Arm Cortex-M3 microcontroller ([STM32F205RGT6](#)), a brand new MCU for the FSAE team that monitored faults and routed power/signals to peripheral circuitry on the car. My work included schematic design and PCB layout.

Music - Private violin study

1999 to present

- **MIT Arts Scholar**

2016 to present

Mission: To foster an active community of MIT students with an exceptional interest in the arts. The community's resultant role is that of an arts leadership group, cultivated through events and mentorship.

- **MIT Chamber Music Society**

2014 to 2018

- **MIT Emerson Fellow**

2016 to 2017

The Emerson Program offers merit-based financial assistance for private lessons to MIT students of outstanding achievement on their instrument or voice in classical, jazz or world music via competitive auditions.

- **Teacher: Mr. Malcolm Lowe** – Concertmaster of Boston Symphony Orchestra (BSO)

2014 to 2015

SKILLS

Cadence Virtuoso ADE, LTspice, Altium, Soldering, Reflow, using oscilloscope, multi-meter, signal/fxn generator, Autodesk Inventor, Fusion 360, Assembly language, Verilog, Python, HTML, CSS, jQuery, Javascript, Arduino, Ruby on Rails, MATLAB, L^AT_EX