

LINDSEY H. WOO

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<https://lindsey-woo.github.io/>

EDUCATION

Northeastern University, Boston, MA

May 2019

*Candidate for Bachelor of Science in **Electrical and Computer Engineering***

Related Courses: Electronics II, Wireless Communication Circuits, Integrated Circuit Devices, Noise and Stochastic Processes, Algorithms, Electromagnetism, Communication Systems, Linear Systems

Organizations: Eta Kappa Nu (HKN), Society of Asian Scientists and Engineers (SASE)

GPA: 3.78 / 4.00

SKILLS

Hardware: Oscilloscope, Function Generator, Digital Multimeter, Power Supply, Soldering (SMD/Through-Hole), Cable making, Wire crimping/cutting, Logic Analyzer, Arduino, MSP430, Raspberry Pi

Software: C/C++, Altium, LTSpice, MATLAB/Simulink, Linux, Git, I2C, UART, Python, SolidWorks, AutoCAD, ROS, Verilog, MIPS Assembly, HTML, CSS

WORK EXPERIENCE

Accion Systems, Boston, MA

July 2018 – December 2018

Electrical Engineering Co-op

- Designed and developed constant current source PCB to simulate load current to test current sensors. Prototyped various designs, conducted thermal testing for part tolerance, captured schematic in Altium
- Performed static load testing of power processing unit sweeping from negative to positive 1300 volts

Piaggio Fast Forward, Boston, MA

July 2017 – December 2017

Embedded Software Co-op

- Developed firmware in C for capacitive sense board using I2C and interrupt functions from the MSP430 to control LED driver, haptic feedback, Adafruit Neopixels, and capacitive touch buttons
- Constructed wiring harnesses, installed power components, and performed electrical verification tests for electrical assembly and troubleshooting of autonomous cargo-carrying robot
- Conceptualized functional block diagram for power board for ADC readings, message packaging and communication to and from the IO board, and timer for the power button

Photo Diagnostic Systems, Inc., Boxborough, MA

July 2016 – December 2016

Engineering Co-op

- Developed a MATLAB program to perform a filtered back-projection for image reconstruction using sparse matrices to improve computation speed and memory efficiency
- Controlled telescopic pillars to raise and lower patient table through RS232 using Python
- Performed diagnostic tests to screen for photodiode array boards that measured 50% above or below the average dark and light current for product verification

PROJECT EXPERIENCE

Wireless Communication Circuits Project, Northeastern University

Spring 2018

MFJ Cub Transceiver

- Tuned RC filters to achieve frequency necessary to communicate with other radios via Morse Code
- Soldered components and debugged circuit board

Embedded Design & Enabling Robotics Lab, Northeastern University

Fall 2015

Robotic Arm

- Programmed in C to receive signals from the WiiMote and generated pulse width modulation signals utilizing MATLAB's Simulink to actuate servos of robotic arm