

# LINDSEY H. WOO

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

## EDUCATION

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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

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Hardware: Oscilloscope, Function Generator, Digital Multimeter, Power Supply, Soldering (SMT/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

## WORK EXPERIENCE

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**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*

- Created 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

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**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