LINDSEY H. WOO

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

EDUCATION

Northeastern University, Boston, MA   May 2019
*Bachelor of Science in **Electrical Engineering***
Related Courses: Electronics II, Wireless Communication Circuits, Integrated Circuit Devices, Noise and Stochastic Processes, Algorithms, Electromagnetism, Communication Systems, Classical Control Systems
Organizations: Eta Kappa Nu (HKN), Society of Asian Scientists and Engineers (SASE)
GPA: 3.79 / 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, Network Analyzer
Software: C/C++, Altium, LTSpice, MATLAB/Simulink, Linux, Git, I2C, UART, Python, SolidWorks, AutoCAD, ROS, Verilog, MIPS Assembly, HTML, CSS, VBA

WORK EXPERIENCE

Raytheon, El Segundo, CA   July 2019 – Present
Electrical Engineer I
- Conducted efficiency tests on motor controller boards, collected and compiled data, revised test procedures, and investigated and located errors to increase power efficiency by 9%
- Evaluated and calculated Beginning of Life and End of Life parts variability tolerances for worst case circuit analysis
- Remodeled parts database structure and developed VBA macros for better user interface and reduction of user error

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 circuit designs, conducted simulations in LTSpice, captured schematic layout in Altium Designer, and documented trade studies and testing procedures
- Performed load testing of high voltage power processing unit sweeping from negative to positive 1300 volts
- Revised schematics and updated library database components

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

Capstone Design Project, Northeastern University   Spring 2019
Autonomous Visual Navigation and Mapping Search and Rescue Drone
- Built a system that autonomously navigates a forest trail to locate a person of interest with 3 group members using NVIDIA's RedTail neural networks, IMU mapping, and LoRa communication protocol

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