ANDREW J WHITAKER

Electrical Engineer
Boston, MA
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EXPERIENCE

Lockheed Martin Advanced Energy Storage

Electrical Engineer, Level II Andover, MA Sep 2021 – Present

- Designing and implementing procedures and apparatuses for assembly and testing of large energy system prototypes.
- Developing and testing battery diagnostic instrumentation as an active member of an interdisciplinary team.

Electrical Engineer, Level I Andover, MA Jun 2020 – Sep 2021

- Nominated for and received an early promotion based on strong positive team feedback.
- Prototyping of cost-saving hardware using Altium Designer and analytical software using Flask and Python.

Controls Engineering Contractor Andover, MA Jul 2019 – Nov 2019

- Created an internal Python-based engineering platform for testing system controls by emulating various sensor scenarios.
- Began developing a custom hardware solution to expand upon functionalities provided by off-the-shelf test hardware.

Electrical Engineer (Co-Op) Waltham, MA Jan 2018 – Jun 2018

- Developed programs using Python, LabVIEW, Modbus TCP/IP, and CANBus to interact with sensors and PLCs.
- Created test procedures, system specifications, and product timelines for grid solutions in a systems engineering capacity.

Lutron Electronics

Hardware Electrical Engineer (Co-Op) Cambridge, MA Jan 2019 – Jun 2019

- Developed line noise filters for a new Lutron product to meet FCC, UL, and California Title 20 efficiency standards.
- Made design contributions for custom test hardware components used in factory product verification assemblies.
- Daily lab bench analysis and experimentation for verification and development of line voltage consumer devices.

Desktop Metal

Hardware Electrical Engineer (Co-Op) Burlington, MA Jan 2017 – Jun 2017

- Designed, integrated, and tested parts for the DM Studio System using Altium Designer and LTSpice.
- Developed and interfaced with test fixtures using Arduino, Python, LabVIEW, OnShape, SolidWorks, and MATLAB.

SKILLS

Hardware: Oscilloscopes | Spectrum Analyzers | ARB/WFG | Soldering: SMT and TH | 3D Printing | Hi-Pot | ESD | HV Safety | Machine Shop | Audio Circuits | Mixed Signal | Logic Controllers | Power | Mechanical

Software: Altium | KiCAD | SolidWorks | SPICE | Python | Git | Bash | C++ | Java | MATLAB | LabView

PROJECTS AND PROFESSIONAL DEVELOPMENT

- *Wireless Audio Control Interface (WACI)* – A high-sampling analog-digital audio interface with dedicated wireless effects controls for live performances – *Winner, 2019 Capstone Competition*
- Applying Practical EMI Design and Troubleshooting Techniques – Dec 2021 course with Lee Hill, Silent Solutions LLC
- Generate Build Studio – Prototype development on small interdisciplinary teams for Northeastern entrepreneurs.

For additional project explanations, including works in progress, visit **andrewjohnwhitaker.com/academics-engineering/**

EDUCATION AND HONORS

Bachelor of Science in Electrical and Computer Engineering, Summa Cum Laude, 3.9 GPA

Northeastern University Boston, MA May 2020

Coursework: Power Electronics, Control Systems, Electronics 1 + 2, Analog Integrated Circuit Design, Linear Systems, Electromagnetics, Embedded Design, Algorithms, Networks, Noise and Stochastic Processes, Digital Logic Design

Awards and Societies: Eta Kappa Nu (Apr 2018), Tau Beta Pi (Apr 2019), IEEE Power and Energy Society Scholar (2016-'19)

Eagle Scout; Bronze, Gold, and Silver Palms

Boy Scouts of America Troop 1008 Pittsfield, MA November 2014