

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

- Contributing member of an interdisciplinary team focused on designing and testing battery diagnostic instrumentation.
- Design and execute procedures and apparatuses for assembly and testing of large energy system prototypes.

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