

KABATO BURKA

he/him/his

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Availability: September 2024 - December 2024 / May 2025 - August 2025

EDUCATION

Northeastern University

Boston, MA

Bachelor of Science in Electrical Engineering

May 2025

GPA: 3.46/4.00 (Senior Standing)

Activities: Black Engineering Student Society, National Society of Black Engineers, Northeastern Wireless Club

Coursework: Circuits and Signals, Computing Fundamentals, Embedded Design, Fundamentals of Linear Systems, Fundamentals of Electromagnetics, Fundamentals of Electronics (Electronics I), Electronic Design (Electronics II), Fundamentals of Networks, Noise and Stochastic Processes, Power Systems Analysis, Power Electronics

TECHNICAL SKILLS

Electronic Tools: Multimeter, Signal Generator, Oscilloscope, Vector Network Analyzer, Soldering (THT & SMD)

Software Tools: Git, LTspice, Simulink, Microsoft Office, KiCAD, OrCAD Capture & SPICE, Altium Designer

Programming Languages: MATLAB, Python

TECHNICAL EXPERIENCE

Kostas Research Institute

Burlington, MA

Electrical Research Engineer Intern

January 2024 - Present

- Validate project designs for the Assured Communications and Electromagnetic Dominance Division
- Design KiCAD schematics and layouts for advanced electromagnetics research projects
- Prepare lab equipment, including function generators, oscilloscopes, and vector network analyzers, for testing

SharkNinja

Needham, MA

Electrical Design Engineer Intern

July 2023 - December 2023

- Supported senior members in KiCAD and Altium designing of analog circuits and the development of novel concepts and technologies for next-generation cordless vacuum consumer electronic products
- Performed design, debugging, and board bring-up of analog real-time embedded electronics
- Lead PCBA reworks of field products and analysis of consumer-reported issues with EE, PD, FW, and SW teams

Northeastern University's Circuits and Signals Course

Boston, MA

ECG Heart Monitor

November 2022 - December 2022

- Designed ECG system using an instrumentation amplifier for signal production as well as low and high-pass filters to produce a cleaner signal
- Integrate an NI-DAQ device and MATLAB code to display digital filtering of the heart signal
- Produce OrCAD PSpice schematic of full circuit design

Northeastern University's Cornerstone of Engineering Course

Boston, MA

Thermoelectric Generator Project

September 2021 - December 2021

- Developed a prototype with thermoelectric pads and household items that could produce approximately 16 volts at 100°C, which could then be used for purposes of charging a phone or powering a light bar
- Analyzed studies on the Seebeck Effect and thermoelectric generation to finalize the prototype
- Designed an accurate prototype with Solidworks to use as a blueprint to solder the actual materials

WORK EXPERIENCE

Northeastern University Housing and Residential Life

Boston, MA

Resident Assistant

August 2022 - Present

- Complete bi-annual training on maintaining student safety and well-being as well as conflict control
- Lead as a student role model and resource for residents during events and personal chats
- Budget and execute monthly events for 50-150 undergraduate students to provide a sense of belonging