

KABATO BURKA

he/they

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EDUCATION

Northeastern University

Boston, MA

Bachelor / Master of Science in Electrical Engineering

May 2025 / May 2026

GPA: 3.55 (Undergraduate) / 3.83 (Graduate)

Activities: Resident Assistant (Fall 2023 - Present), National Society of Black Engineers-Black Engineering Student Society (Alumni Relations Chair Fall 2024 - Spring 2025), IEEE Power Electronics Society

Coursework: Circuits and Signals, Electronics 1-2, Probability and Statistics, Power Systems Analysis (Graduate), Power Electronics (Graduate), Electromagnetic Devices for RF and Wireless (Graduate), Electric Vehicles (Graduate), Electric Drives (Graduate), Power Management Integrated Circuits (Graduate), Research (Undergraduate/Graduate)

TECHNICAL EXPERIENCE

Renesas

Boston, MA

Field Application Engineer

January 2025 - Present

- Deliver schematic and system-level design guidance to accelerate product adoption with Renesas Power and Analog legacy and newly generated parts for consumer and industrial electronics applications in New England
- Contribute 7.5% to the New England Region's 2025 \$70,000,000 Design-In Goal
- Host monthly distributor meetings in regional branches to generate awareness of potential solutions for over 100+ customers in the local region
- Provide consultations, application guidance, and on-site engineering support for 20+ customer opportunities
- Collaborate with sales and product engineering teams to resolve technical challenges and align solutions

Fleet Robotics

Somerville, MA

Robotics Test Engineer Intern

September 2024 - December 2024

- Researched magnetic system behavior, focusing on field interactions and their adhesion to ship hulls
- Conducted experimental Shimadzu Autograph testing and data analysis to evaluate sensor reliability and magnetic interference in real-world environments for 50+ hand-assembled electropermanent magnets
- Inform design improvements based on magnetic field characterization and system response of 3 new prototypes

Amazon

Boston, MA

Hardware Development Engineer Intern

June 2024 - September 2024

- Directed a Failure Modes and Effects Analysis for the 20lb Universal Item Sorter system across NA and EU/UK, establishing and monitoring KPIs to drive asset cost reduction for Amazon Reliability Maintenance Engineering
- Examine the use case and development of systems along with their sub-components at traveled sites in NA
- Consult with 10+ key internal stakeholders to align project objectives and drive outcomes of asset reliability

Kostas Research Institute

Burlington, MA

RF Research Engineer Intern

January 2024 - June 2024

- Validated antenna project designs for the Assured Communications and Electromagnetic Dominance Division
- Developed KiCAD schematics and layouts for advanced electromagnetics research projects
- Prepared lab equipment, including function generators, oscilloscopes, and vector network analyzers, for testing
- Translated test results into design updates that improved match and bandwidth

TECHNICAL PROJECTS

Soar Panel Electrode Cleaning Drone

July 2024 - December 2024

Developed a drone-based solar panel cleaning system using a 0-10 kV DC electrode and compressed air for waterless dust removal, featuring ESP32-controlled subsystems

Wilkinson Power Divider

May 2024 - June 2024

Designed, simulated, and fabricated a 2.45 GHz 2-way Wilkinson power divider using Keysight Genesys, Ansys HFSS, and LPKF milling on Rogers RO4003C, achieving targeted RF performance in lab testing

TECHNICAL SKILLS

Languages: C++, MATLAB, Mathematica, Python, LaTeX

Software Tools: Adobe Suite, Asana, Git, Jira, Google Workspace, Microsoft 365, Slack, Windows, Linux, UNIX

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

Design Tools: Altium, Ansys HFSS, Fusion 360, Keysight Genesys, KiCAD, LTspice, PLECS, OrCAD, Cadence Virtuoso