

# Vasishta Malisetty

malisetty.v@northeastern.edu | (724) 420-0353 | [linkedin.com/in/vmalisetty](https://www.linkedin.com/in/vmalisetty) | [vasishta-malisetty.netlify.app](https://vasishta-malisetty.netlify.app)  
Available May – August 2024

## EDUCATION

**Northeastern University**, Boston, MA May 2026  
Bachelor of Science (BS), Electrical and Computer Engineering **GPA: 3.85**  
**Relevant Coursework:** Circuits and Signals, Embedded Design, Digital Design and Computer Organization, Networks, Discrete Structures, Probability and Statistics, Differential Equations and Linear Algebra  
**Activities:** Generate Product Development Studio, Tau Beta Pi, John Martinson Honors Program

## TECHNICAL SKILLS

**Hardware:** PCB Schematic Design and Layout, Microcontroller, FPGA, Arduino, Oscilloscope, Multimeter, Soldering  
**Programming Languages:** C++, Python, MATLAB, LabVIEW, SystemVerilog, Assembly  
**Tools:** KiCAD, LTspice, Git, Linux, Solidworks, AutoCAD, Microsoft Office

## WORK EXPERIENCE

**Philips** Jan. 2024 – Present  
*Hardware Test Engineering Co-op* Andover, MA

- Automate test fixtures using LabVIEW to test Philips patient monitoring products against international standards, saving Philips over 170 hours per product requiring validation
- Perform reliability testing on Philips products using HALT systems to identify critical failure modes and potential design improvements, increasing product service life by 20%

**Rite Aid** June 2023 – Aug. 2023  
*Data Security Intern* Hopkinton, MA

- Optimized Rite Aid's network protection software by scripting 1119 Invoke-Atomic Red Team tests using Linux and developing custom security alerts for telemetry gaps, improving Rite Aid's security infrastructure
- Created 34 RegEx patterns for use in Rite Aid's threat monitoring software by investigating 532 unidentified Indicators of Compromise associated with prominent ransomware groups, successfully blocking a malware attack

## PROJECTS

**C-STAR: Autonomous Concrete Sounding Robot** Jan. 2024

- Design hardware for an autonomous concrete sounding robot that detects delaminations in concrete structures
- Create a custom PCB to control DC drive motors and collect encoder position data using an ESP32 microcontroller
- Develop odometry and PID algorithms to autonomously navigate the robot using FreeRTOS and C++

**SEBIK: Automated Tabletop Injection Molder** Sept. 2023

- Developed an automated tabletop injection molder seeking to provide a solution to medical supply shortages by rapidly producing one common medical products every four minutes
- Designed a custom PCB to receive pressure sensor readings and control pneumatic solenoid valves using an ATmega328PB microcontroller, allowing 10.45 grams of molten polypropylene to be injected per cycle
- Analyzed potential failure modes within the injection ram subsystem using a DFMEA and developed robust error handling mechanisms using C++, ensuring user safety throughout the injection process

**HeatWave: Contactless Stovetop** Sept. 2023

- Collaborated with a group of eight engineers to develop a contactless stovetop that allows the user to control the stovetop using hand gestures
- Built ultrasonic motion detectors using C++ and Arduino, improving cooking efficiency by allowing users to precisely switch between five distinct heat settings

**Python Chess Engine** May 2023

- Developed a chess engine from scratch using Python and PyGame, allowing the user to play matches against the 1000 ELO engine
- Implemented an intuitive user interface with customizable board color schemes and automatic algebraic notation, enhancing user experience