# Vasishta Malisetty

malisetty.v@northeastern.edu | (724) 420-0353 | linkedin.com/in/vmalisetty | Portfolio: vasishta-malisetty.netlify.app

## EDUCATION

**Northeastern University** (Boston, MA) May 2026
Candidate for Bachelor of Science in Electrical and Computer Engineering **GPA**: 3.88
**Activities:** Generate Product Development Studio, John Martinson Honors Program, Intramural Soccer
**Coursework:** Electronics, Circuits & Signals, Algorithms, Digital Design, Embedded Design, Networks, Linear Systems

## TECHNICAL SKILLS

**Hardware**: Circuit Design, PCBA Design, Oscilloscope, Multimeter, Function Generator, Soldering, Arduino, IO-Link
**Software**: C++, Python, Altium, KiCad, MATLAB, LabVIEW, LTspice, PSpice, Git, Linux, SystemVerilog, Xilinx Vivado, Quartus Prime

## WORK EXPERIENCE

**Amazon Robotics** Jan 2025 – Present
*Hardware Development Engineering Co-op* North Reading, MA

- Developed Python sensor code to automate data collection from test fixtures using ModbusTCP and IO-Link, validating compact vacuum pumps with 32% greater accuracy and saving Amazon over 70 hours per tested pump

**Raytheon** Jun – Aug 2024
*Systems Engineering Intern* Marlborough, MA

- Created Jenkins-based simulations to debug Raytheon's SPY-6 naval radar software, reducing radar testing expenses
- Developed MATLAB test scenarios to evaluate the SPY-6 radar's ability to identify and track common electronic attack patterns, neutralizing the effects of these attacks on the radar
- Standardized scenario generation workflow using ClearCase and DOORS, improving cross-team adoption of scenario-generation tools and reducing onboarding time by 66%

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

- Automated hardware lifecycle test fixtures using LabVIEW to qualify Philips patient monitoring products against international reliability standards, saving Philips over 170 hours per product requiring validation
- Developed five instrument drivers to control relays, actuators, motors, and sensors via USB, GPIB, and COM ports
- Designed and soldered wire harnesses to integrate a multimeter, load cell, and power supply with a PCB screw terminal, automating the collection of insertion force and contact resistance data for over 20,000 cycles
- Performed HALT on Philips prototypes to identify failure modes, improving product service life by 20%

**Rite Aid** Jun – Aug 2023
*Data Security Intern* Remote

- Scripted 1119 Atomic Red Team tests using Linux, pinpointing gaps within Rite Aid's network protection software
- Created 34 regex patterns for Rite Aid's endpoint security system by identifying 532 Indicators of Compromise

## PROJECT & LEADERSHIP EXPERIENCE

**PlaitPilot** | Altium, Buck Converter, LDO Jan 2025 – Present

- Create an automated machine that reduces hair braid extension preparation time from hours to seconds
- Design the power electronics subsystem in Altium, integrate Buck Converters and LDOs to optimize power efficiency

**Sensify** | GitHub | ESP32 Microcontroller, KiCad, C++, Haptic Drivers, Git Aug – Dec 2024

- Led a team of 5 engineers in the electrical development of a modular VR controller to enhance training simulations
- Engineered and integrated a battery management system, haptics network, and modular tool attachments across three small-form-factor PCBs using KiCad, incorporating an ESP32 microcontroller, DRV2605 haptic drivers, and LDOs
- Developed a state machine using C++ to control haptic feedback, process IMU and force data, and facilitate Bluetooth & HID communication between the controller and computer to ensure real-time and immersive user feedback

**C-STAR** | GitHub | C++, Brushed DC Motors, Encoders, KiCad, ESP32 Microcontroller, Git Jan – Apr 2024

- Created an autonomous concrete sounding robot that detects delaminations in concrete structures
- Designing a custom PCB in KiCad for the drivetrain subsystem, integrating H-Bridge Motor Drivers and an ESP32 microcontroller to control brushed DC drivetrain motors with PWM control signals for precise motion control
- Developed odometry and PID algorithms in C++ to calculate velocity and distance parameters, schedule interrupts to read quadrature encoder data, and transmit movement commands via Bluetooth for autonomous navigation