

Vasishta Malisetty

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EDUCATION

Northeastern University | Boston, MA Sep 2022 – May 2026
Candidate for Bachelor of Science in Electrical and Computer Engineering **GPA: 3.88**
Coursework: Electronics, Circuits & Signals, Algorithms, Digital Design, Embedded Design, Networks, Linear Systems

WORK EXPERIENCE

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

- Created a grasp quality model using Simulink to predict end-effector grasp failure per induct
- Developed a C++ server to collect and store end-effector sensor data in AWS S3 using an ADC, SoM, and CAN
- Built Python scripts to parse 300,000+ JSON data points in AWS S3 and compute end effector kinematics, generating three data-driven requirements for future end-effector design
- Developed Python-based GUIs and sensor drivers to automate vacuum pump data collection using ModbusTCP and IO-Link, increasing test capacity from 1 to 4 pumps and saving Amazon 70+ hours per pump

Raytheon Jun – Aug 2024
Systems Engineering Intern Marlborough, MA

- Developed MATLAB simulations to test Raytheon's SPY-6 radar against electronic attacks, improving the radar's functionality against four electronic attack patterns
- Integrated test software using Jenkins to debug the SPY-6 radar, eliminating \$400,000+ in testing expenses
- Consolidated waypoint generation scripts using ClearCase, increasing department use of scripts by 66%

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

- Automated reliability test fixtures using LabVIEW, saving Philips 170+ hours per product requiring validation
- Designed wire harnesses to interface a multimeter, load cell, and power supply with a PCBA, automating insertion force and contact resistance testing over 20,000 cycles
- Built five instrument drivers using LabVIEW to control relays, linear actuators, and DC motors via USB ports

PROJECT & LEADERSHIP EXPERIENCE

PlaitPilot | Generate Product Development Studio | Electrical Engineer | [GitHub](#) Jan 2025 – Present

- Created Plaitpilot, an automated machine that reduces hair extension preparation time from hours to seconds
- Designed power electronics PCBA in Altium using DC-DC switching converters to power peripherals efficiently
- Developed a C++ driver to collect distance data from Time of Flight sensor using an ESP32 and I2C

Sensify | Generate Product Development Studio | Lead Electrical Engineer | [GitHub](#) Aug – Dec 2024

- Led a team of 12 engineers in developing Sensify, a modular VR controller that enhances training simulations
- Designed 3 PCBAs for real-time haptic feedback, USB-C charging, and hot-swappable peripherals using an ESP32 to communicate with sensors via I2C, SPI, and UART protocols
- Debugged PCBA connections and signals with an oscilloscope and multimeter to ensure successful operation

C-STAR | Generate Product Development Studio | Electrical Engineer | [GitHub](#) Jan – Apr 2024

- Built C-STAR, an autonomous concrete sounding robot that detects delaminations in concrete structures
- Designed PCBA for PWM control of brushed DC motors using KiCad, H-Bridge motor drivers, and an ESP32
- Developed PID algorithms with C++ and FreeRTOS to handle encoder interrupts and control robot movement

SEBIK | Generate Product Development Studio | Electrical Engineer | [GitHub](#) Sep – Dec 2023

- Developed SEBIK, an automated injection molder that produces one medical product every four minutes
- Designed a PCBA with KiCad to control pneumatic piston actuation using N-channel MOSFETs
- Initiated a FMEA and implemented C++ error handling, ensuring user safety throughout the injection process

TECHNICAL SKILLS

Hardware: Circuit Design, PCBA Design, Oscilloscope, Multimeter, Arduino, IO-Link, Raspberry Pi, Function Generator

Software: C++, Python, Altium, KiCad, MATLAB, LabVIEW, PSpice, Git, CMake, Linux, SystemVerilog, Xilinx Vivado