Vasishta Malisetty

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EDUCATION

Northeastern University, Boston, MA — Sept 2022 - May 2026
Bachelor of Science in Electrical and Computer Engineering — **GPA:** 3.85
Relevant Coursework: Fundamentals of Electronics, Circuits & Signals: Biomedical Applications, Embedded Design: Enabling Engineering, Digital Design & Computer Organization, Fundamentals of Networks, Discrete Structures
Awards: Honors Scholarship, Tau Beta Pi Engineering Honors Society, Dean's List

TECHNICAL SKILLS

Hardware: Circuit Design, PCBA Design, Oscilloscope, Multimeter, Arduino, Soldering, Microcontrollers, FPGAs
Programming Languages: Python, C++, MATLAB, SystemVerilog, Assembly Language
Tools: Linux, Git, KiCAD, EasyEDA, Solidworks, AutoCAD, LTspice, Quartus Prime, Xilinx Vivado

WORK EXPERIENCE

Philips — Jan 2024 - Present
Hardware Reliability Engineer Co-op | Andover, MA

- Perform accelerated stress tests on patient monitoring products by using H.A.L.T. systems, increasing product service life by 20%, reducing pre-market approval times, and lowering development costs

Rite Aid — June - Aug 2023
Data Security Intern | Hopkinton, MA

- Conducted 1119 Atomic Red Team tests by using the Invoke-Atomic framework and generating threat intelligence reports on telemetry received from CrowdStrike Falcon, improving Rite Aid's overall security posture
- Delivered 532 unidentified Indicators of Compromise (IoCs) to the Anomali ThreatStream Database by parsing threat intelligence reports on multiple Ransomware groups, successfully preventing a security breach

PROJECTS

C-STAR: Autonomous Concrete Sounding Robot — Jan 2024 - Present
Generate Product Development Studio | Boston, MA

- Design hardware for an autonomous concrete sounding robot seeking to aid civil engineers in creating repair assessments for parking garages by performing impact sounding to determine the location of delaminations
- Create a custom PCBA with an ESP32 microcontroller for the motor drivetrain subsystem
- Develop an odometry algorithm using Python to accurately track the position of the robot within the parking garage

SEBIK: Automated Table Top Injection Molder — Sept - Dec 2023
Generate Product Development Studio | Boston, MA

- Developed an automated table top injection molder seeking to provide a solution to medical supply shortages by rapidly producing common medical products on demand
- Designed a custom PCBA with an ATmega328PB microcontroller using KiCAD, allowing 10.45 grams of molten polypropylene to be injected every 4 minutes via pneumatic cylinders
- Identified potential failure points within the injection ram subsystem and developed appropriate error handlings using C++, ensuring user safety throughout the injection process

HeatWave: Contactless Stovetop — Sept - Dec 2023
Forge Product Lab | Boston, MA

- Created a contactless stovetop that allows the user to control the heat applied using hand gestures
- Developed ultrasonic motion detectors using C++ and Arduino, allowing users to rapidly switch between five distinct heat settings.

Chess Engine — May - June 2023
Personal | Hopkinton, MA

- Developed a chess engine using Python, allowing the user to play PvE and PvP modes with four distinct board color schemes