Varun Palleti

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EDUCATION

University of Maryland — College Park, MD
B.S. Computer Engineering — Expected May 2025

TECHNICAL SKILLS

Programming Languages: C/C++, Go, Rust, Python, MATLAB, Java, JavaScript, Kotlin, SQL, Assembly (ARM, MIPS, AVR)
Relevant Coursework: Data Structures, Systems Architecture, System Design, Distributed Systems, Database Design

WORK EXPERIENCE

Incoming Software Engineer — Aug 2025
[Redacted] — *[Redacted]*

Software Engineering Intern — May 2024 – Aug 2024
GE Healthcare — *Waukesha, WI*

- Engineered a scalable image segmentation framework for MRI brain scans, setting the groundwork for extension to full-body scans to be used to improve image quality for an ultra-premium photon counting scanner
- Developed a suite of algorithms from scratch, including thresholding, pixel density, and fuzzy c-means, designed for adaptability to various imaging conditions
- Utilized specialized Python and MATLAB toolboxes to enhance the medical imaging dataset, tripling its size and improving anatomical distinction by 34%, as verified by a team of image quality radiologist technicians

Software Development Intern — Sep 2023 – May 2024
Leidos — *McLean, VA*

- Integrated transportation components into a simulated environment, using Java and C++ to develop and test algorithms optimizing autopilot behavior, reducing average completion time by 8.3% (7 seconds per test)
- Designed a Python-based tool to automate GPS data corrections, using computational algorithms to recalculate latitude and longitude coordinates, drastically reducing positional errors by 94% across all 19,286 position files
- Created an interactive tool which enabled real-time control within simulated transportation ecosystems, allowing complex scenario testing with faster adjustments, programmed in C++ and Java

Software Engineering Intern — May 2023 – Aug 2023
GE Healthcare — *Waukesha, WI*

- Implemented a custom AutoYast config file using Logical Volume Management to optimize storage management and flexibility. Leveraged Perl, XML, and Bash for system configurations and operations
- Leveraged LVM's snapshot functionality to create regular backups of system data, enabling efficient data recovery in case of system failures or data corruption
- Achieved a significant increase in image pool storage, expanding space by 42% from 3.3 million to 4.8 million images. This extended the image retention period for hospitals, reducing the need for frequent deletions

Machine Learning Researcher, Program Mentor — Jan 2022 – May 2024
UMD – FIRE Program — *College Park, MD*

- Guided 2 groups of undergraduate researchers on the development image classifiers using TL and ML concepts
- Conducted independent research on Hurricane/Cloud classification using analysis algorithms

LEADERSHIP & PROJECTS

LinkedIn Automation Tool | *Python, Selenium, SQLite, Git* — Oct 2024

- Led the development of an automation tool that helped users engage with recruiters across 50+ companies
- Designed and implemented a backend using Selenium for browser automation and SQLite for data tracking, scaling the tool to handle over 370 unique users on pace to **reach over 1000 users**

"Proactive Prescriptions" Hackathon Project | *JS, Raspberry Pi, Arduino*

- Collaborated in a 4-member team to develop a pill dispensing system incorporating a LIDAR sensor and buzzers, dedicated to aiding elderly patients
- Recognized with the "Best DIY Hack" award by the University of Maryland, distinguishing our project as the top entry among 91 submissions