Leo Berman

Computer Engineer

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Professional Summary

Emerging computer engineer graduate with a passion for problem solving in low and middle level programming languages. I'm currently seeking to apply my skills and experience to an embedded or firmware engineering role.

Education

Temple University **Philadelphia, PA**

BS Computer Engineering August 2021 – December 2024

- GPA: 3.97
- Dean's List, IEEE HKN Honor's Society

Experience

Automation Engineering Intern **May 2024 – August 2024**

Ezsoft. Inc Malvern, PA

- Programming component-based software for PLCs (Programmable Logic Controller) for applications in industrial food & beverage and pharmaceuticals to ISA-88 and ISA-95 standards
- Developing VBA applications for on-site DDE operations and internal Python tools for high volume code changes and in-program error checking
- Performing on-site visits to investigate high pressure system failures and supervise new hardware installations and software integration

Research Assistant **March 2024 – Current**

Dr. Samuel Rosen's BDC Research Lab Philadelphia, PA

- Utilizing Pandas, Beautiful Soup, Pyppeteer, Selenium, and Requests Python libraries to scrape Schedule of Investment tables from the SEC
- Helping to manage RA teams by implementing Python code standards based on PEP8
- Successfully implemented novel approach using cell element sizes to improve deliverable time by 400% from 24+ hours to less than 6 hours

Research Assistant **May 2023 – August 2023**

Dr. Jim Napolitano's Nuclear Physics Research Lab Philadelphia, PA

- Collaborating with physicists to reduce error rate to 0.042 % for a portion of the MOLLER (Measurement Of Lepton Lepton Elastic Reaction) experiment
- Developing Python scripts to write time and wavelength spectrums for emulating deadtime
- Debugging WaveDump, an open-source data collection software written in C, to automate data entry from FPGA digitizers directly to external disks

Projects

Breast Cancer Digital Pathology System – Working with machine learning specialists to design novel Machine Learning systems for breast cancer diagnosis (GitHub)

Upcycling Treadmill to Web-Controlled Walk Pad – Converting treadmill to low profile walk pad controlled via web interface (GitHub)

Languages & Technologies

Languages: C/C++, Assembly (AVR, MIPS), Python, VBA, Arduino, Bash

Technologies: Linux, Atmel, FPGA (Xilinx), Git, AutoCAD, Jira, AWS (Cloud Practitioner Certified)

Mentorships

Science Fair Judge: The Langley School | McLean Virginia

Mathematics & Physics Tutor: Algebra | Calculus | Statistics | Classical Physics