

Joel Abraham

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EDUCATION

Drexel University, Philadelphia, PA

BS in Computer Engineering & BS in Electrical Engineering

Coursework: Data Structures and Algorithms, Circuits, Digital Logic, Design with Microcontrollers, Computer Organization and Architecture

SKILLS AND INTERESTS

- Technical: Python, C, MATLAB, VHDL, Verilog, Assembly, APIO, Wireshark, Teraterm, SOLIDWORKS, Model Sim, MATLAB, Simulink, Microcontrollers, Switches, PLCs,
- Training Certifications: Siemens Ruggedcom, OSHA 10
- Active Security Clearance Level: Secret

WORK EXPERIENCE

Thermo Systems LLC, Philadelphia, Pennsylvania

Aug 2024 – Present

Control Systems Engineer

- Supported control system projects with hardware/software design, integration, and testing.
- Developed skills in HMI applications, PLC programming, CAD tools, and system troubleshooting.
- Ensured timely, accurate project completion while following quality standards and communicating effectively with customers.

Fluke, Philadelphia, Pennsylvania

Aug 2023 – Mar 2024

Reliability Engineer

- Optimized machine performance and reduced material deformation by accurately measuring and parallelizing machine components while creating clear and concise service reports for customer reference.
- Managed inventory, including receiving and shipping.
- Conducted customer outreach for insurance renewals, focusing on retention marketing and renewal sales.

NAVSEA, Philadelphia, Pennsylvania

Aug 2022 – Mar 2023

Network Engineer

- Implemented network upgrades by integrating new devices on for ship classes CVN, LHD, LSD, and LCS.
- Conducted rigorous lab testing of new configurations for seamless execution on ship systems.
- Managed and lab spaces and proper cabling.

Projects

Custom Spell Checker

Dates

- Created an application designed for rapid word lookup operations, enhancing text analysis efficiency.
- Developed a specialized hash table and integrated an algorithm to identify and correct typing errors effectively.

16-Bit Computer Project

- Developed digital computer architecture, including CPU, ALU, and memory using VHDL.
- Built an optimized assembler and parser, implementing a five-stage RISC-V pipeline.
- Utilized simulation tools like APIO and Nand2Tetris to generate and analyze output signals.

LEADERSHIP EXPERIENCE

Intramural Volleyball Drexel, *Vice-Captain (2022-2023), Captain (current)*

Sept 2022 – Current

Society of Asian Scientists and Engineers (SASE), *Community Service Director*

Sept 2022 – June 2023