

Joel Abraham

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EDUCATION

Drexel University, College of Engineering
Bachelor of Science in Computer Engineering
Bachelor of Science in Electrical Engineering

Philadelphia, PA

SKILLS

- Technical: Cadence, Synopsys, SPICE, C, MATLAB, VHDL, Verilog, Assembly, Wireshark, Rockwell Automation (Studio 5000, FactoryTalk), SOLIDWORKS, ModelSim, Simulink
- Certifications: Construction OSHA 10, General Industry OSHA 10, Fundamentals of Industrial Networking

EXPERIENCE

Physical Design Engineer — Charge Recovery Logic (Senior Design Project)

Sept 2025 - Present

Drexel University

- Designing transistor-level circuits in Cadence for charge recovery logic using adiabatic design techniques.
- Developing and simulating custom CMOS circuits intended for integration within a RISC-V processor architecture.
- Supporting RTL and logic development to ensure compatibility between circuit-level designs and system-level constraints.

Control Systems Engineer

Sept 2024 - Apr 2025

Thermo Systems LLC

Fort Washington, PA

- Led and implemented 30+ control system projects across various stages of development, serving as engineer, product manager, designer, and budget analyst.
- Managed acceptance testing for newly built and installed control panels, ensuring full functionality and reducing testing time by 33% while maintaining quality standards.
- Designed, updated, and implemented HMI applications and SCADA systems for new and existing operations, collaborating with operators to capture system requirements.
- Maintained documentation and provided risk assessments for new business proposals, while tracking and updating financial records to stay within project budgets.

Network Engineer

Sept 2022 - Apr 2023

Naval Sea Systems Command

Philadelphia, PA

- Implemented, installed, and tested network upgrades for active U.S. naval ships, including LSD, LHD, LHA, CVN, and CVL classes.
- Configured switches, VLANs, and ports, and verified new network connections aboard vessels and in laboratory environments.
- Utilized Wireshark, traffic generators, and Spanning Tree Protocol (STP) to evaluate network performance for load, latency, throughput, routing, and packet loss.

LEADERSHIP

Intramural Volleyball Captain

Apr 2023 - Present

Community Service Director of Society of Asian Scientists and Engineers

June 2022 - June 2023