

Joel Abraham

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EDUCATION

Drexel University, College of Engineering Bachelor of Science in Computer Engineering Bachelor of Science in Electrical Engineering	Sept 2021 - June 2026
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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	Sept 2025 - Present
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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
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Thermo Systems LLC

Fort Washington, PA

- Led and implemented 30+ control system projects across various stages of development, serving as engineer, product manager, CAD 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
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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 Community Service Director of Society of Asian Scientists and Engineers	Apr 2023 - Present
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Jun 2022 - Jun 2023