



SEMILORE KAYODE

Canadian Citizen | Design Portfolio

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Education

Dalhousie University

Bachelor of Electrical and Computer Engineering

Sep. 2020 – Current

Halifax, Nova Scotia

Co-op Status: Available for a four-month Co-op term starting September 2024.

Relevant coursework: Digital Circuits, Analog Electronics, Communication Systems, Electromechanics, Microprocessors, Circuit Analysis, Operating Systems, Computer Architecture.

Experience

Dugo Systems

Product Manager Intern

Jan 2024 – Apr 2024

Halifax, Nova Scotia

- Implemented rigorous validation processes in collaboration with technical experts to ensure data accuracy and reliability in battery calculations and conductance values.
- Led the investigation into battery management capabilities, enhancing platform accuracy and reliability.
- Updated the database with the latest information on rectifiers, DC plant controllers, and batteries.
- Conducted in-depth analyses of platform features, identifying key usage scenarios and benefits, which facilitated client understanding and satisfaction.

Imhotep's Legacy Academy

STEM Activity Developer

June 2023 – August 2023

Halifax, Nova Scotia

- Created Science, Technology, Engineering and Math related activities for students in grades 6 – 9 to participate in.
- Educated and mentored up to 50 students from grades 6 – 9 in programming, enabling them to create their own game.

Projects

Home Security System | C, Circuit Analysis, Microprocessors

Jan 2023 – Apr 2023

- Tasked with designing, building, and implementing a home security system. Collaborated with a group of four to successfully implement.
- Assumed the role of project leader, took initiative testing and utilizing key components, and integrating the entire system.
- Through a series of brainstorming, calculation, and testing, using C programming, the team was able to implement the system. The system included a keypad for the owner to arm the system, LEDs and an LCD screen that corresponded to the status of the system, sensors which detected an intruder and an audible siren which alerted the owner of an intruder.

Dental Material Usage Management System | SolidWorks, System Design

Sept 2020 – Dec 2020

- Collaborated with a team to design a prototype for a "Smart Drawer" aimed at managing dental material usage. The project focused on creating a compartment to hold and measure the remaining material in syringe-style filling compounds, thereby automating inventory tracking for dental practices.
- Created detailed technical drawings and section views (A-A, B-B) for different parts such as syringe bodies, plungers, and pockets at various usage levels (100%, 75%, 50%, and 25%).
- Delivered a functional prototype design for the Smart Drawer, meeting all client specifications and significantly reducing manual labor required for dental inventory management.

Volunteering

Safe Harbour Research & Technologies

Engineering Project Volunteer

Mar 2024 – June 2024

Emera IdeaHub

- Installed and configured solar panels and charge controllers for underwater technologies at Safe Harbour Technologies, enhancing the sustainability and efficiency of energy systems.
- Evaluated and enhanced safety protocols for underwater equipment, focusing on innovative heat release methods to ensure operational safety and compliance with industry standards.
- Optimized Python code for advanced underwater technology applications, improving script readability and system performance, which facilitated more efficient project development and deployment.

Technical Skills

Languages: Python, C/C++, HTML/CSS, MATLAB

Developer Tools: VS Code, GitHub, Arduino IDE

Simulation Tools: SolidWorks, LT Spice, TINA-TI, ROS 2(middleware), Gazebo