SEMILORE KAYODE

Canadian Citizen | Design Portfolio

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Education

Dalhousie University   **Sep. 2020 – Current**
Bachelor of Electrical and Computer Engineering   *Halifax, Nova Scotia*

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

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

Experience

Dugo Systems   **Jan 2024 – Apr 2024**
Product Manager Intern   *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   **June 2023 – August 2023**
STEM Activity Developer   *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

Olympic Athlete Tracker Database | *C++, Data Structures and Algorithms*   **Jan 2023 – Apr 2023**
- Led a group of four to design and implement an Olympic Athlete Tracker program in C++ with a menu-driven interface, allowing users to add, retrieve, display, sort, remove, count, and clear athlete records.
- Addressed potential memory leaks in the project by utilizing linked lists to store dynamically allocated objects for sprinters and soccer players. Implemented proper deallocation using the delete keyword to free up memory as needed.
- Demonstrated effective memory management practices using UML diagrams, flow diagrams, and comprehensive test cases. Successfully managed potential system failures by addressing special data input cases, ensuring the Olympic Athlete Tracker functions as a reliable and robust system for tracking athletes participating in the Olympics.

Autonomous Electric Delivery Vehicle | *C, System Analysis*   **Sept 2023 – Dec 2023**
- Contributed to a team project designing key components of an autonomous vehicle system including pickup and delivery protocols, and initial framework for a dynamic billing system.
- Developed software aiming to optimize urban navigation and logistics management, focusing on real-time adjustments to cityscape changes and efficient routing despite incomplete features due to project time constraints.
- Implemented navigation and operational protocols for AEDVs, ensuring compliance with urban traffic rules and preliminary accident management strategies, enhancing system reliability and performance in simulated environments.

Volunteering

Safe Harbour Research & Technologies   **Mar 2024 – June 2024**
Engineering Project Volunteer   *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