Shawn Adrian

me@shawn.onl • in/shawn-adrian/

WORK EXPERIENCE

Software Developer | Affinity RCM (*Harris Computer*) – *Ottawa, ON* Jul. 2024 – May. 2025

- Engineered scalable RESTful API endpoints in C#/.NET to expose SQL Server data to support billing and appointment for high-volume hospital systems.
- Designed scalable frontend interfaces with React.js and Material-UI to visualize large-scale patient service metrics, optimizing system response and operational efficiency for users across different departments.
- Optimized automated CI/CD pipelines (Jenkins), integrating unit testing protocols to streamline deployment cycles.
- Worked within an Agile team with Jira to manage project progress and ensure efficient sprint deliveries.

Software Developer Intern | Harris Novum (*Harris Computer*) – *Ottawa, ON* May. 2022 – Jun. 2024

- Built a web app (React, SQL Server) to facilitate user-friendly patient record management and streamline complex hospital billing workflows, improving data retrieval processes and reducing critical reporting time by 30%.
- Built a secure payment portal, handling 1,200+ monthly operations, an 18% increase in payment completion rates.
- Led the company's rebrand initiative and launched a new website in Webflow, saving over $14k USD.

Computer Engineering Intern | *Tech. Services* @ Memorial University – *St. John's, NL* Sep. 2023 – Dec. 2023

- Designed and deployed a Python-based data management system to replace legacy tracking methods. Consolidated 20,000+ records of lab safety equipment into a centralized database, ensuring compliance with safety standards.
- Managed technical infrastructure and procurement for different departments, performing diagnostics and repairs on user and research workstations to minimize downtime.
- Led rapid prototyping initiatives using 3D printing to design and fabricate equipment, streamlining lab operations.

Research and Development Intern | Genoa Design International – *Mt. Pearl, NL* Jan. 2021 – Apr. 2021

- Spearheaded the design of an immersive Mixed Reality app, providing an interactive user experience in ship CAD design training.
- Developed C# scripts in Unity for the Mixed Reality Toolkit (MRTK) to handle complex user interactions and state management for HoloLens 2 applications.
- Transformed ShipConstructor CAD models into optimized, high-performance 3D assets with Blender to ensure smooth performance and improve user interaction.

PROJECTS

Kilick-1 Cube Satellite

- Designed the Payload Finite State Machine to manage mission critical lifecycle events, including power sequencing for the MAX GNSS chip and configuration of the Spartan FPGA.
- Engineered the Delay Doppler Map (DDM) generation engine in C, optimizing complex matrix algorithms to process GNSS signals within the strict timing constraints of the onboard Spartan FPGA.
- Developed embedded C drivers (SPI/I2C) for the payload subsystem, managing real-time data flow between the central control unit and peripherals sensors.

Docker Network IoT Stack

- Designed a containerized IoT network stack, with a shell script to automate deployment of containerized apps like Pi-hole (DNS Sinkhole), Unbound (DNS resolver), CouchDb to sync Obsidian notes, and NGinx for local sites.
- Optimized a 32-bit Raspberry Pi 2B environment by implementing strict logging drivers and Log2RAM to minimize SD card wear, ensuring long-term system stability and performance within a 1GB RAM constraint.

EDUCATION

Memorial University of Newfoundland and Labrador *St. John's, NL*
B.Eng. in Computer Engineering Class of 2024

Languages & Tools: C | C# | Python | JavaScript | Java | SQL | Git | Jenkins | Postman | Unity | Docker | Vue | React
Hardware & Frameworks: Linux/Unix | Raspberry Pi | Microcontrollers | 3D Printing & CAD