Quinn Paterson

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Bachelor Of Engineering, University of Victoria, 2021

Professional Summary

Versatile software engineer with ~4 years of experience in app development, test automation, and embedded systems, along with experience in full-stack development and DevOps. Proven track record in healthcare tech, aerospace, industrial applications, and social applications. Self-starter with a voracious appetite for learning and a skilled communicator, adept at conveying complex concepts to both technical and non-technical audiences. Strong background in **C, Python, Java, and Kotlin**

Work Experience

Independent Software & Game Developer   **Nov 2024 – Present**
- Rebuilt a 14-page Android social app, transitioning it to a modern **MVVM** architecture, implementing GIS-based features, authentication, and user collectibles.
- Refactored application backend from **AWS Lambda** to a **Python FastAPI** server, consolidating services and implementing a suite of 50 automated tests to improve reliability.
- Designed two strategy board games, focusing on mechanics balance, player interaction, and strategic depth.
- Built a personal website to showcase projects and professional experience using **React** and **Material UI**.

R&D Test Engineer,   **May 6, 2024–Sept 23, 2024**
Schneider Electric
- Used **Python** to establish and expand test automation suite for upcoming hardware project.
- Developed libraries for flashing **STM32** chip via **UART**, wrote **BACNet** controller for other devices
- Worked with **I2C** and machine vision library to prototype using camera as part of integrated testing
- Used requirements to develop test suite, test plan, and test framework for upcoming hardware system.
- Designed a hardware rig for testing various electrical, software and mechanical inputs and outputs as well as integrated system testing.

Python Software Developer,   **Jan 26, 2023 - May 6, 2024**
MDA Space
- Developed software to automate testing and validation for satellite components.
- Wrote code to automate communication between various devices on network using **TCP/IP Serial, Telnet, SCPI** and other communication protocols.
- Worked with numerous groups / stakeholders to gather requirements, develop software and provide continuous support.
- Wrote **CI/CD Jenkins** code to assist with deploying software between a wide variety of machines, and to automate regular performance of testing.

Embedded / Android Developer   **Sept 28, 2021 - December 2022**
Medipense
- Worked to develop and refine features for an Android based real time medical assistance device. This development was done in a mix of **Java** and **C**.
- Was responsible for planning and developing the complete implementation of a safety sensitive **Android** pill tracking application developed in **Kotlin** following Google architecture recommendations including asynchronous features, database development, and long-running processes.
- Wrote **driver** code for integrating new hardware pieces in **C** including new screen and mechanical delivery mechanism, debugged pre-existing code.

Technical Skills
Programming Languages: Python, Kotlin, Java, C, SQL, JavaScript
Technologies: Jenkins, Git, AWS, Azure, Visual Studio, Android Studio, Confluence, JIRA
Protocols & Frameworks: UART, I2C, SPI, Modbus, SCPI, IP/TCP, FreeRTOS, Azure IoT, ARM processors
Languages: English, Native; French, Intermediate

Full Stack Developer   **Sept, 2020 - Sept 2021**
Spontaniius

- Founded a team of student volunteers and managed the project in order to create an **Android** application.
- Documented APIs, architecture, mock-ups and requirements for application
- Developed frontend through **Java** / **Kotlin**, developed back end using Node.js and **PostgreSQL**.
- Designed and implemented a microservice-based, serverless backend on **AWS** (**Lambda**, RDS-PostgreSQL, Cognito)

Middleware Development co-op   **Feb 1, 2019 - August 30, 2019**
ICBC

- Created an internal web application for updating documentation for connections between services using Sharepoint as its backend. Developed using **HTML, CSS, JavaScript, Angula**r.
- Worked to migrate discrete services into a system bus for easier long term support.
- Created an automated testing package to maintain future quality for the internal application. Taught automation to others.
- Created customized **Splunk** dashboards for various error types.

Quality Engineer
Millson Technologies   **September 25, 2017 - December 22, 2017**

- Designed and implemented a comprehensive automated testing system for multimedia device controller using **C#**, also an automated test suite / reporting system using **Selenium**, Nuint.
- Debugged multimedia embedded system, and added new features using **C**.
- Prototyped and documented implementation of **IoT** features into multimedia device.
- Developed a MEAN based web interface to control IoT devices.

Dev Support QA
Electronic Arts   **January 21, 2017 - September 25, 2017**

- Used Python to create tools to improve quality of work including web crawlers, and a browser tool for opening a website across all locales
- Automated hundreds of front end test cases using **Java**, **Selenium** and **Junit**.
- Worked with various teams by writing various error fix tickets, performed follow-up with developers to clean backlog and refine priorities.
- Used **Postman** to perform crud API testing, used Junit for further automation
- Wrote hundreds of test cases and created test suites for existing and new EA Games websites, including EA Sports Websites and Star Wars Battlefront. Searched for errors and debugged using **HTML, JavaScript** and **CSS** Inspection.