JACKSON LEVEROCK

Computer Engineer

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EDUCATION

Bachelor of Engineering in Computer Engineering

University of Guelph

09/2020 - 06/2024

CERTIFICATIONS & COURSES

Certified Associate in Project Management (CAPM)

Project Management Institute | Issued: 2025

Embedded Systems Design (In Progress)

Coursera – Expected Completion: April 2025

LANGUAGES

English | French

PROFESSIONAL SKILLS

Project Management | Leadership | Collaboration | Problem-Solving | Working Under Pressure | Time Management

TECHNICAL SKILLS

C/C++ | Python | VHDL | MIPS/ARM Assembly | freeRTOS

TECHNOLOGIES/PLATFORMS

Linux

GitHub

Arduino

STM32 Discovery Board

ARM Cortex-M4

Nexus A7 Artix-7

Xilinx Vivado

Vivado HLS

MARS MIPS Simulator

WORK EXPERIENCE

Full Stack Developer

Litespace.io

07/2024 - Present

- Supported the development team with cleaning/refactoring the codebase
- Added and modified backend tasks
- Tools/Languages used: JavaScript, Typescript, GraphQL, and Apollo Server

Sales Operations Associate

Bayer Inc.

05/2023 - 09/2023

- Created Python scripts to help streamline the process of collecting consent from Healthcare Professionals, saved 2000+ emails from being sent manually
- Refined and customized HTML email templates to ensure compatibility and optimal formatting within Outlook Mail
- Tools/Skills used: Selenium for web scraping to determine consent statuses, and employed pandas for streamlined data management
- Used openpyxl for automating mass emails dispatch, utilizing supplementary libraries like Beautiful Soup for HTML parsing and SMTPlib for email sending functionalities

Market Access Associate

Bayer Inc.

05/2022 - 09/2022

- Tasked with analyzing trends in the pricing of products
- Used Python to increase efficiency of my role
- Reported findings and estimations periodically
- Tools/Skills used: Excel, Python, Project Management, Data Analysis

PROJECT EXPERIENCE

Wildfire Prediction Neural Network

04/2024

- Implemented a binary classification neural network to determine the likelihood of a fire in a sub-region of British Columbia, Canada
- Attained a validation accuracy of 75%
- Utilized data from the Copernicus ERA5 hourly data on single levels from 1940 to present, with a roughly equal amount of fire and non-fire data points
- Employed ReLU and sigmoid activation functions to learn the non-linearity of real-world data

Real Time Home Security System

11/2023

Real Time Home Security System Developer

- Interfaced an STM32 microcontroller, PIR sensor, and ArduCAM module to simulate a home intruder detection system
- PIR sensor detects movement by reading changes in radiation levels
- ArduCAM captures images once motion is detected

Smart Shelving Inventory Manager

11/2023

- Measured the number of units on a stack using ultrasonic sensors and pressure sensors
- Utilized ZigBee modules for direct communication between the apparatus and main Arduino board
- Employed PuTTY terminal to view incoming/outgoing data and local data storage via the terminal's log feature
- Implemented LEDs to indicate the fullness of the stack, signaling whether to replenish the inventory