SAMUEL QUINTEIRO PEREZ

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2B HONOURS PHYSICS - 21018509

Summary of Qualifications

- Strong problem-solving skills gained through personal projects and work experience.
- Excellent interpersonal skills developed from 3 years of customer service positions.
- Languages: **Python, C**, **C++**, **JavaScript, HTML & CSS, Arduino,** and **Git.**
- Proven leadership skills developed during Queens Startup Summit 2022-2023.
- Comfortable working in labs and **cleanrooms**, demonstrated through work at SNOLAB.
- Experience in **embedded programming** from a personal project for a wearable using Zephyr RTOS.

Experience

RESEARCH ASSISTANT – SNOLAB – Sudbury, Ontario – September-December 2024
- Upgrading hardware components of the DEAP-3600 dark matter detector.
- Performing **data analysis** using CERN's particle physics data analysis framework ROOT in C++.
- Simulating the passage of particles and radiation through matter using the GEANT4 toolkit.

COMPUTER SUPPORT ASSISTANT – University of Waterloo – Waterloo, Ontario – January-April 2024
- Wrote Bash scripts to automate the deployment of multiple FPGA development boards to be used by students in a lab course – significantly reducing the time needed to set up the lab for the students.
- Provided computer support (hardware and software) for professors and their research groups (students and visitors) on **Linux**, Windows, and macOS systems.
- Repaired and troubleshooted computers and peripherals brought to the lab by faculty and graduate students.

CUSTOMER SERVICE REPRESENTATIVE – Sid's Pond & Gardenscape – Mississauga, Ontario – May-August 2023
- Regularly made $10,000+ sales to help customers redesign their property by using sales skills and knowledge on landscape supplies.
- Advanced large projects by calculating exact quantities of supplies needed when given measurements by contractors.

Projects

VINTAGE SMART WATCH
- A vintage Casio inspired watch with certain smart watch capabilities (Bluetooth, Media Playback Controls, Notifications, etc.).
- Developing the hardware in **C** with a Nordic development board (nRF52 SoC), using Zephyr RTOS.
- Gaining expertise in PCB design and development to ensure seamless integration of hardware components within a compact watch case using **KiCad** and **Altium**.

POKER CALCULATOR APP
- Programmed an app that calculates the percent chance of winning/tying any 2-card hand for up to 6 different people in Texas Hold'em poker to aid players in understanding probabilities.
- Wrote the GUI in **Python** using the Kivy app development framework.

PERSONAL WEBSITE - samuelqp.github.io/Personal-Website

Education

CANDIDATE FOR B.Sc. IN HONOURS PHYSICS– University of Waterloo – 2022-2027
- Excellent Standing (85%+ average)
- Relevant coursework: Modern Physics (received grade of 97%), Technical Report Writing, Quantum Physics, Optics lab; Probability, Statistics, and Data Analysis; Computational Physics and Linear Algebra (**Python**); Classical Mechanics and Special Relativity

Activities and Interests

- Deep passion for physics and understanding the nature of the universe.
- Involved in UW Poker Club – have won multiple tournaments and a trophy.
- Enjoy playing the guitar.
- Led a team of 5 at the 2022-23 Queens Startup Summit by assigning roles and providing feedback.
- Directed a Spanish **bilingual** art workshop for children (Mimos Kids)