


PAULA AMAYA

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Education

BSc in Computer Science & Mathematics

University of Calgary

Sep. 2023 – Present

Calgary, AB

Experience

Information Technology Analyst Intern

River Valley School

May 2024 – Aug 2024

Calgary, AB

- Led the implementation of Jira Service Management (JSM) ticketing system from inception, including **proposal development**, presentation to senior management, rollout, and staff-wide training.
- Played an active role in the **vendor selection process** for an asset management tool, leading the migration from the legacy system to AssetSonar, improving asset tracking and reporting capabilities.
- Developed custom **data wrangling middleware** to integrate PowerSchool SIS with in-house analytics dashboards, enhancing real-time data reporting and decision-making.
- Participated in the automation of staff onboarding processes, reducing manual workload and ensuring consistent setup of technology resources for new employees.
- Participated in a comprehensive database cleanup initiative, overseeing the mass upgrade of staff and student records, safe deletion of duplicate entries, and ensuring **data integrity** across systems.

Embedded Systems Developer

University of Calgary Solar Car

Sep 2023 – Aug 2024

Calgary, AB

- Collaborated with a team of developers and electrical engineers in designing and implementing software solutions for electronic control systems using a **C/C++** development environment.
- Conducted research on the Orion Battery Management System (BMS) and its integration capabilities.
- Developed comprehensive **documentation** detailing BMS functionality and best practices for incorporating its data-gathering features into the vehicle's advanced **analytics** ecosystem.

Risk Strategy Intern

Wave Financial

May 2022 – Aug 2022

Toronto, ON

- Planned, developed, and delivered database documentation for 15+ tables stored in an Amazon Redshift warehouse.
- Developed 10+ relational database functions in **SQL** to streamline data analysis and improve reporting accuracy.
- Created and deployed a real-time analytics dashboard using **Python, Numpy, and Pyplot**. This tool contained 20+ metrics related to the company's most profitable payments line of business.
- Conducted regular data quality checks to ensure integrity and compliance with industry standards and regulations.

Projects

Theorem Prover in miniKanren | Racket

- Developed a basic proof checker for implicational minimal logic in miniKanren to explore the Curry-Howard correspondence between computer programs and mathematical proofs.
- Defined a custom grammar in Racket for representing proof expressions. Given a proposition and a proof expression, the program checks whether the proof is valid for the expression.
- Currently working on “backwards” functionality. Program will be capable of determining the logical soundness of any proposition and, if valid, generate a proof for it.

Technical Skills

Languages: Python, C/C++, MATLAB, JavaScript, SQL

Technologies/Frameworks: Linux (Arch), Bash, Git, L^AT_EX, Markdown

Developer Tools: Github, Jira, Confluence

Honors & Awards

Diversity in Mathematical Sciences Summer School

The Fields Institute for Research in Mathematical Sciences

Aug 2024

Halifax, NS

Awarded funding from The Fields Institute to participate in a week-long course on commutative algebra at Dalhousie University, collaborating with faculty and students from the US, Canada, and Mexico.