Darsan Qi

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EXPERIENCES / PROJECTS

Advanced Analytics Intern May. 2023 – September 2023

Pembina Pipeline| Calgary, Canada

- Spearheaded the company's transition of backend software from Databricks to an end-to-end solution on Palantir Foundry, cultivating an extensive mastery of both data platforms.
- Developed data forecasting machine learning models for the purpose of realizing significant cost reductions for the company.
- Enhanced the company's operational efficiency by streamlining tasks with automation primarily through the development of Python scripts and the implementation of Selenium for web scraping.
- Utilized Python and SQL for data integration and conducted critical data analysis using Quiver analyses.
- Crafted intricate Sankey and Vortex data visualizations to derive critical insights for the company.

Software Developer September 2023 - Present

University of Toronto Aerospace Team - Division of Rocketry | Toronto, Canada

- Project co-lead for the design of backend C++ application and networking solution which Effectively handle thermal sensor data, converting raw readings into actionable insights through advanced algorithms and data visualization techniques.
- Research and design end-to-end solutions that seek to seamlessly integrate various hardware and software components to achieve specific and critical rocketry objectives.
- Development of a front-end Electron application, which utilizes JSON, Node.js, and JavaScript to construct a graphical user interface that is able to integrate the C++ backend using a custom-built API.

FPGA Developer October 2023 - December 2023

University of Toronto |Toronto, Canada

- Developed interactive skill-based tests on the FPGA chip, including reaction time and chimp memory tests using Verilog HDL
    - Interfaced PS2 mouse and keyboard protocol with display output on the VGA monitor, allowing for real time accurate user interaction.
    - Developed Hex decoding modules capable of displaying user score natively on the FPGA chip.
    - Collaborated extensively with team members to integrate individual components of the FPGA-based skill testing project.

Engineering Communications Liaison January 2023-May 2023

Engineering Strategies and Practices II | Toronto, Canada

- Innovated a knee brace support solution designed to aid individuals with knee injuries in stabilizing their brace during everyday physical activities. By leveraging industry-standard practices, our team synthesized a design that was effortlessly intuitive, easily affordable, and highly functional.

Key Responsibilities:

- Assumed a pivotal role in client and stakeholder communications, guaranteeing the fulfillment of their requirements through proactive engagement and meticulous coordination.
- Facilitated the organization and scheduling of meetings and key dates, ensuring seamless interactions and exchanges.
- Upheld a smooth operational flow within my team by fostering robust internal communication and promoting collaborative practices.

EDUCATION

University of Toronto | Bachelor of Applied Science in Computer/Electrical Engineering + PEY Co-op Expected April. 2027

- GPA: 3.0/4.0
- Major in Computer Engineering with an expected minor in Robotics
- Relevant Courses: Computer Organization, Software Design and Communication, Electronics, Digital Systems (Verilog HDL), Computer Fundamentals(C), Programming Fundamentals(C++), Circuit Analysis, Engineering Strategies And Practices

Western Canada High School |Calgary, Canada September 2019-June 2022

- Lifetime Honor of Distinction award recipient
- International Baccalaureate Programme student

SKILLS

Python, C, C++, Java, Assembly, FPGA, SQL, Verilog, JSON, Excel VBA, MATLAB, Palantir Foundry, Databricks, Azure DevOps, Selenium, OOP