

Balkarn Gill

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EDUCATION

Master of Electrical & Computer Engineering (M.Eng) - Software Specialization

University of Calgary

- Organizations/Awards: GSA Academic Committee Vice Chair

Expected: May 2024

Calgary, Alberta

Bachelor of Biomedical & Electrical Engineering (B.Eng)

University of Guelph

- Organizations/Awards: Dean's Honors List, Engineering Society, Robotics Team

Graduated: May 2022

Guelph, Ontario

WORK EXPERIENCE

Systems Analyst

Zedcor • (Casual part-time)

June 2023 – Present

Calgary, Alberta

- Conduct thorough analysis of business processes and identify areas for improvement, resulting in streamlined workflows and increased productivity.
- Configure and program sensors using PHP and MySQL to enhance security measures and ensure efficient monitoring of critical areas.
- Proactively monitor Genetec system performance, identify bottlenecks, and implement optimization strategies to enhance system reliability and performance.
- Increased system efficiency by ~5% in July 2023 by optimizing red zones, filters, and training object analytics models.

Supply Chain and Operations Manager

Uline • (Permanent full-time)

October 2022 – April 2023

Milton, Ontario

- Led and managed a team of 30+ direct reports to optimize performance.
- Maintained a focus on meeting daily volume output targets while adhering to strict cut-off hours.
- Implemented monthly incentives to boost team morale and recognize high-performing employees, resulting in a notable decrease in the department's error rate from 0.021% to 0.017%.

IT Consultant / Project Coordinator

ATF Transport • (Permanent full-time)

April 2022 – October 2022

Woodbridge, Ontario

- Contributed to the successful integration of new fleet management software by developing a customized solution that aligned with the company's unique requirements.
- Demonstrated exceptional troubleshooting skills by effectively identifying and resolving errors in the software and keeping the staff up to date with the latest functionalities and updates through regular briefings.

Software Developer

Carnostic • (Internship)

September 2021 – April 2022

Toronto, Ontario

- Was responsible for defining, articulating, and executing the UX vision and strategy.
- Significantly contributed to the development of the user interface utilizing Sketch to visualize the design and React.js for implementation.
- Collaborated with key partners to continuously collect and review customer data and feedback for optimization opportunities and validation of user experiences.

PROJECTS & LEADERSHIP EXPERIENCE

Autonomous Plant Disease Detection Robot

Software & Circuitry Lead

January 2022 – April 2022

Guelph, Ontario

- Coordinated a team of interdisciplinary engineers in building an automated "Pathfinder" which was programmed to weave through rows of plants on its own, avoiding obstacles and detecting signs of disease in plants.
- Temperature sensor, humidity sensor, and ultrasonic distance sensor were wired and programmed using Arduino, a hyperspectral camera was also wired into the design and programmed using C via a Raspberry Pi, and important data points were transmitted using a Wi-Fi module.
- Won 1st place in the W22 innovative engineering design competition at the university.

Brachycephalic Breed CT-Scan Apparatus

Research and Development Lead

September 2021 – December 2021

Guelph, Ontario

- Chosen out of 60+ applicants to design product for Dr. Alex Zur Linden from the Ontario Veterinary College.
- Purpose of the project was to create an apparatus that reduces visibility obstructions during CT-Scans for Brachycephalic dog breeds
- SolidWorks and ANSYS were utilized to create a fully working model that met all constraints/criteria of the client.

SKILLS

Languages/Frameworks: Python, Java, JavaScript, MATLAB, C++, TypeScript, React, Pandas, NumPy, Tailwind, Git

Technologies: SolidWorks, AutoCAD, CircuitLab, ANSYS, Revit, ORACLE, Primavera P6, MS Office, Visual 3D