

Balkarn Gill

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[portfolio](#) | [linkedin](#) | [github](#)

EDUCATION

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

May 2023 - Apr 2024

University of Calgary | GSA Academic Vice Chair | 4.0 GPA

Calgary, AB

Bachelor of Biomedical Engineering (B.Eng)

Sep 2017 - Apr 2022

University of Guelph | Dean's Honour List | Robotic's Team | Engineering Society

Guelph, ON

SKILLS

Programming Languages Python | Java | JavaScript | C | C++ | PHP | MATLAB | Simulink

Technologies MySQL | Jupyter Notebook | SolidWorks | AutoCAD | CircuitLab | ANSYS | Sharepoint | MS Office

Data Science & Frameworks Pandas | NumPy | MatPlot-Lib | React.js | Angular | Django | Node.js

EXPERIENCE

Systems Analyst

Jun 2023 - Present

Zedcor | (Part-Time)

Calgary, AB

- Proactively monitor **Genetec system performance**, identify bottlenecks, and implement optimization strategies to enhance system reliability and performance.
- Configure and **program sensors using PHP and mySQL** to enhance security measures and ensure efficient monitoring of critical areas.
- Increased system efficiency by ~5%** in July 2023 by optimizing red zones, filters, and **training object analytic models**.

Operations Manager

Oct 2022 - Apr 2023

Uline | (Permanent Full-Time)

Milton, ON

- 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

Apr 2022 - Oct 2022

ATF Transport | (Permanent Full Time)

Woodbridge, ON

- 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

Sep 2021 - Apr 2022

Carnostic Inc. | (Internship)

Calgary, AB

- 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.

NOTABLE PROJECTS

Neo Financial's "Tech Thursdays" Web Application

Aug 2023 - Present

Full Stack Developer

Calgary, AB

- Recognized the need for an **event-specific website** for Neo Financial's weekly tech events in Calgary & Winnipeg and proactively offered my expertise, assisting with the development of its **front-end using React and back-end using Drupal** to enhance user engagement and event visibility.
- Collaborating with a small team of software developers to incorporate many features such as user authentication & authorization, event management, speaker management, registration & ticketing, sponsor & partner management, newsletter subscription, and email notifications.

Autonomous Plant Disease Detection Robot

Jan 2022 - Apr 2022

Software & Circuitry Lead

Guelph, ON

- Coordinated a team** of interdisciplinary engineers in building an automated "Pathfinder", 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** at the university's W22 innovative engineering design competition.