

Ishpreet Bal

+1 (416) 697 6581 | ishpreetbal81@gmail.com | [linkedin.com/in/ishpreet-bal](https://www.linkedin.com/in/ishpreet-bal)

Education

McMaster University

Computer Engineering, Bachelor of Engineering

Hamilton, ON

Sept. 2023 – Present

- **Relevant Coursework:** Electronic Devices and Circuits II, **Data Structures & Algorithms**, Software Development, Microprocessor Systems Project, **Digital Systems Design**, Signals and Systems

Experience

Quality Engineering Intern

Magna International

May 2026 – Present

Markham, ON

- Primary developer for the Supplier, Warranty, and Customer Quality Engineering (SQE/CQE) team, designing and deploying internal software that supports **plant-wide quality operations** using **C#, Python, Power Automate, Power Apps, and Dataverse**.
- Built an automated **cross-system data pipeline** integrating multiple internal APIs to replace a manual daily reporting process, delivering a **centralized, real-time dashboard** that cut hours of reconciliation work down to a single view.
- Independently identify gaps in how the team tracks and reports quality issues, then design and build the software to close them end-to-end, including schema design in **Azure SQL** through to the deployed application.
- Maintain and extend several **production applications** now used facility-wide, improving reliability and adding functionality as new operational needs come up.

Facility Operations Attendant

City of Brampton

May 2024 – Present

Brampton, ON

- Manage over **1,000 facility, inventory, and event records a month** using **SQL queries** and **Excel workflows** (filters, validation, reconciliation), reducing data entry errors by **15%**.
- Coordinate logistics for **50+ large-scale events annually**, including A/V system setup and real-time scheduling changes, improving on-site response times by **30%**.

Direct Sales Specialist

TELUS

Apr. 2024 – Jun. 2024

Mississauga, ON

- Sold telecom products and plans directly to customers in a fast-paced, target-driven retail environment, learning to diagnose what someone actually needed rather than just pitching the highest-margin option.
- Handled objections and troubleshooting on the spot, building the clear, patient communication that now carries directly into explaining technical work to non-technical stakeholders.

Projects

Foundry | Sales Automation Platform for Small Agencies

July 2026 – Present

- Designing and building a full sales platform for automation agencies: it researches a prospect's actual website, drafts personalized outreach grounded in what it found, and holds every message for human approval before sending.
- Built a grounding layer so every AI-generated claim about a prospect must trace back to a verified quote from their site, rejecting anything that can't be matched rather than trusting model output directly.
- Full stack on **Next.js, TypeScript, and Tailwind CSS**, with **PostgreSQL, Prisma, and Supabase** on the backend, **Clerk** for multi-tenant auth, and the **Anthropic API** powering research and drafting.
- Built out supporting infrastructure including **campaign scheduling**, email deliverability safeguards, **Stripe** billing, and **Docker**-based deployment, running it as a real product rather than a local demo.

CANary | Predictive Fault Detection for Vehicle Sensor Data

July 2025 – Aug. 2025

- Simulated **CAN-based vehicle sensor data** and applied windowed time-series segmentation with statistical feature extraction to train a **Random Forest** fault detection model, reaching **>90% accuracy**.
- Built an interactive **Python dashboard** to visualize live CAN signals and inference output, validating robustness across **20+ simulated failure scenarios**.

Leadership & Extracurricular

289.Runs | Co-Organizer

Co-organized a weekly run club, secured sponsorships from **New Balance and Reign**, and grew social media to **1,000+ followers** and **100K+ monthly views**.

Technical Skills

Languages: Python, C, C++, C#, SQL, TypeScript, JavaScript, SystemVerilog, Java, Assembly, HTML/CSS

Tools & Platforms: Power Apps, PostgreSQL, Supabase, Prisma, Docker, Vercel, n8n, Stripe, Clerk, Excel, FPGA