

Justin Dhillon

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EDUCATION

Western University

Bachelor of Science, Honours Computer Science, Minor in Software Engineering

London, ON

Expected April 2028

EXPERIENCE

IBM

Software Developer Intern

Sept 2026 – Present

Markham, ON

- Delivered profile navigation and layout updates for an internal support app across **7 React components**, adding **11 profile links** with access-filtered ticket lists, server-side counts, and pagination.
- Coordinated and manually validated **role-based access fixes** in **NestJS/Prisma**, preventing restricted viewers from seeing unauthorized products and enabling admin-managed product restrictions.
- Contributed fixes to **NestJS/BullMQ** grading workflows, addressing missing answers and job-state race conditions that left failed jobs stuck until timeout.

Sun Life Financial

Software Engineering Intern

May 2026 – Aug 2026

Toronto, ON

- Shipped an internal AI knowledge-capture platform preserving institutional knowledge from **5+ developers** across **30+ completed projects**.
- Extended an open-source **Zowe MCP server** for Sun Life's environment, adapting mainframe operations for LLM-powered developer workflows.

Mainframe Developer

May 2025 – Apr 2026

- Built Python automation to capture diagnostics and alert on **SQL ERROR -905** failures, uncovering a previously unknown API failure condition capable of crashing the service.
- Developed **Python regression automation** to validate mainframe systems after maintenance, detecting environment-breaking failures before production impact.

President & IBM Z Student Ambassador

Western Cyber Society

Apr 2024 – May 2026

London, ON

- Led **10 developers** to ship **2 full-stack projects** integrating REST APIs, Docker, DB2, and IBM LinuxONE; managed sprints, code reviews, and delivery.
- Organized the **Canadian Tech Summit** for **200+ attendees** and IBM Z workshops for **50+ students**; presented to IBM leadership and major Canadian banks.

PROJECTS

Ayori | *TypeScript, Node.js, PostgreSQL, pgvector, AWS Bedrock, Docker, Zowe*

2026 – Present

- Architected a VS Code extension and **AWS Bedrock** backend to capture undocumented COBOL, JCL, and REXX decisions through developer interviews, with **PostgreSQL/pgvector** for grounded retrieval.
- Observed **zero hallucinations on 412 adversarial questions** in a **722-question evaluation** over **1,000+ sessions**, using a deterministic guard with repeatable refusal decisions.
- Replaced LLM refusal checks with a rule-based guard, reducing check latency from **7.5 s to 40 ms**.

RiskGuard | *Python, Java, COBOL, ONNX, LightGBM, IBM LinuxONE*

Sept 2024 – Apr 2025

- Built a mainframe fraud-detection pipeline processing **10,000+ transactions/second** at under **50 ms** latency, with **97%** accuracy on **590,540 labeled transactions**.
- Trained an ONNX-optimized LightGBM model with **431 engineered features**; accelerated inference with NVIDIA Triton on IBM LinuxONE to improve throughput by **30%** over baseline.

TECHNICAL SKILLS

Languages & Tools: Python, Java, C++, TypeScript, JavaScript, SQL, COBOL, Git, Linux, AWS, z/OS

Web & Backend: React, Next.js, Node.js, NestJS, Prisma, PostgreSQL, pgvector, Docker, BullMQ

AI & Testing: AWS Bedrock, RAG, PyTorch, Scikit-learn, ONNX, LightGBM, Jest, Playwright