

Gurkirat Singh

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EDUCATION

Computer Programming & Analysis, Associate Degree

Humber Polytechnic, 3x Dean's Honour List Recipient (2023, 2024)

Etobicoke, ON

Sept 2023 – Dec 2026

TECHNICAL SKILLS

- **Languages & Scripting:** Python • JavaScript/TypeScript • Golang • Java • Bash
- **Web Development:** React • Next.js • Node.js • Express • Flask • FastAPI • GraphQL
- **Cloud & Devops:** Docker • Kubernetes • Google Cloud • AWS • Azure • Terraform • Jenkins • Cloudflare • Vercel
- **AI & Automation:** Microsoft Copilot Studio • Power Automate • n8n • Vercel AI SDK • MCP Servers • Claude Code
- **Databases:** PostgreSQL • MongoDB • Redis • MySQL • DynamoDB • Prisma ORM • Drizzle ORM
- **Tools & Testing:** Git • Linux • Selenium • Puppeteer • Playwright

WORK EXPERIENCE

Software Developer Intern

Investigative Journalism Foundation

Toronto, ON

Jan 2026 – Present

- Built and maintained infrastructure supporting **13 public-interest databases**, enabling large-scale data collection and analysis for journalists and policymakers across Canada.
- Rebuilt a government **data collection pipeline** for the public appointments database, improving reliability of structured data extraction and preprocessing at scale.
- Refactored **analytics architecture** across the organization's platform, enabling cleaner data tracking, reporting, and insight generation for editorial decision-making.
- Automated OAuth user onboarding into the marketing platform, reducing manual data entry overhead by approximately 40%.

Software Developer (Co-op)

OPTrust

Toronto, ON (hybrid)

Sept 2025 – Dec 2025

- Designed and deployed **Azure AI data pipelines** and autonomous AI agents for enterprise-grade document ingestion, processing thousands of records monthly with zero manual intervention.
- Engineered scalable **ETL workflows** with Python and Docker for large-scale PDF summarization and structured information extraction using Azure Document Intelligence, cutting processing time by 60%.
- Built a **generative AI agent** leveraging LLM-based parsing (prompt engineering) and Playwright/Firecrawl to autonomously extract insights from Microsoft 365 Copilot updates and distribute weekly digests to 200+ stakeholders.
- Developed **RAG-enabled** low-code agents in Microsoft Copilot Studio that automated cross-team data workflows, reducing manual effort by 80%.
- Collaborated with cross-functional data and ML engineering teams to translate business requirements into scalable AI solutions, communicating findings to both technical and non-technical stakeholders.

Systems Automation Engineer (Co-op)

OPTrust

Toronto, ON (hybrid)

Jan 2025 – Aug 2025

- Led enterprise **process-automation** initiatives using Microsoft Power Platform and **Azure** to modernize IT service delivery, reducing manual workload across a 500+ employee organization.
- Designed and implemented an IT Service Catalogue with request/approval automation using Power Automate and **Azure SQL**, analyzing service patterns to improve customer satisfaction by 70%.
- Developed **Python** scripts in Microsoft Intune for automated deployment of Windows 10/11 updates across 500+ devices, applying data-driven approaches to minimize downtime and improve IT compliance.
- Communicated complex technical findings and automation strategies to non-technical business partners, ensuring alignment across multi-functional teams.

PROJECTS

[Earth Lens](#) – Winner Best Sustainability AI Hack @ GenAI Genesis 2025

Real-time natural disaster prediction platform that autonomously ingests multi-modal data (NASA satellite imagery, NOAA weather feeds) via **ETL pipelines**, applies **TensorFlow machine learning models** to generate risk heatmaps, and pushes alerts to end users at scale.

Technologies: Flask, FastAPI, TensorFlow, Google Earth Engine API, Vercel AI SDK, Firestore, Twilio

[Repo360](#) – Winner @ Hack the 6ix 2025

AI-powered codebase analyzer leveraging **Gemini-1.5-flash** (generative AI / LLM) with **prompt engineering** to convert complex repositories into architectural breakdowns and guided exploration paths.

Technologies: Next.js 15, GitHub API, Gemini LLM, Firebase Genkit

[Marvin QA](#) – Web Scraper Diagnostic Tool

Production-grade diagnostics platform that analyzes failure logs with **Gemini API**, identifies root causes (selectors, CAPTCHAs, rate-limits) via **predictive pattern analysis**, and surfaces actionable fixes through an interactive dashboard.

Technologies: Python, Playwright, Gemini API, PostgreSQL, Next.js