

Sourav Chandhok

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Toronto, ON

Education & Certificates

- Bachelor of Science (Honours) in Computer Science, York University Oct 2026
- Bergeron Entrepreneurs in Science and Technology (BEST) Certificate

Technical Skills and Tools

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

Frameworks & APIs: React.js, Spring Boot, FastAPI, Node.js, Next.js, REST APIs, GraphQL

Databases & Infrastructure: PostgreSQL, Oracle, MySQL, MongoDB, Docker, Linux

DevOps & Testing: Git, GitHub Actions, Jenkins, CI/CD, Selenium, JUnit, Mockito, Testcontainers, Postman

AI & Developer Tools: OpenAI API, LLM Integration, Claude Code, Codex, GitHub Copilot, Cursor

Work History

Ontario Ministry of Education, Ontario Public Service

Toronto, ON

Application Programmer Analyst Co-op

May 2023 – Aug 2024

- Supported the development, testing, and release of Ontario government web applications using **React, Java, and REST APIs** to deliver reliable education and financial-assistance services.
- Implemented **JavaScript, React, and HTML** front-end changes alongside Java backend logic to update user interfaces, business rules, application workflows, and displayed content for functional and business change requests.
- Investigated application behaviour across REST APIs, backend data flows, and **Oracle Database** layers using **Postman, SQL, and JSON** to identify root causes and verify fixes in QA and UAT environments.
- Built and executed **500+ manual and automated test cases** using **Selenium and HP ALM** to validate frontend, API, database, integration, regression, and accessibility requirements.
- Identified and tracked **200+ functional and technical defects** through **JIRA** and HP ALM, collaborating cross-functionally with developers, business analysts, and QA teams to reproduce issues and verify fixes.
- Supported 5+ software release cycles through Jenkins and **CI/CD** workflows in an **Agile/SDLC** environment, performing release validation, regression testing, defect verification, and accessibility testing.

Projects

JobHelperGuru - AI-Powered Job Application Assistant

React, Python, FastAPI, PostgreSQL, AI/LLM

- Built an AI-powered full-stack application using React and Python/FastAPI that analyzes job postings, extracts ATS qualifications, ranks multiple resumes by fit, optimizes resume bullets, and tracks job applications.
- Engineered a provider-agnostic LLM pipeline using an OpenAI-compatible SDK with cloud and local model support, implementing structured job analysis, resume matching, and claim-aware bullet generation to prevent unsupported skills and metrics.
- Designed a secure multi-tenant architecture using PostgreSQL, Cloudflare R2, JWT/bcrypt authentication, encrypted API keys, and Docker deployment to isolate user data and securely manage resumes and application records.

RoleImpact - Access-Change Impact Simulator

React, TypeScript, Java, Spring Boot

- Built a React and TypeScript interface with a Spring Boot backend for simulating employee access changes, helping users identify affected workflows and evaluate mitigation options before making changes.
- Developed end-to-end application workflows connecting frontend interactions to object-oriented Java impact-analysis logic and persistent PostgreSQL data for deterministic simulations and ranked recommendations.
- Containerized the application with Docker and integrated Spring Data JPA, Maven, Flyway, and automated integration testing to support reliable development and deployment workflows.

Toronto Airbnb Market Network - Interactive Data Platform

React, TypeScript, Python

- Built a responsive React, TypeScript, and CSS interface that transformed analysis of 15,809 Toronto Airbnb listings into interactive graph, community, validation, and sensitivity explorers for easier interpretation of market patterns.
- Developed a reproducible Python data pipeline that generated and validated application data from canonical analysis outputs, keeping frontend metrics synchronized with the underlying research.
- Implemented GitHub Actions CI/CD to run linting, builds, unit tests, and artifact validation on every push and pull request, preventing inconsistencies between analytical results and the public-facing application.