

# Vivek Jariwala

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## EDUCATION

### Western University & Ivey Business School

GPA: 3.9/4.0

*Software Engineering (BESc) and Honours Business Administration (HBA)*

*Graduated June 2026*

- **Coursework:** Data Structures & Algorithms, Machine Learning, Cloud Computing, Operating Systems, Databases, Web Development, Object-Oriented Programming, Software Testing, Computer Networks, Cybersecurity, Data Analytics
- **Awards:** \$32,000 in merit-based scholarships; 1st Place, AWS Hackathon (2025); 1st Place, BBL ML Hackathon (2024)

## TECHNICAL SKILLS

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

**Frameworks:** React, Next.js, Angular, Node.js/Express, Spring Boot, Flask

**AI/ML:** Snowflake, Scikit-learn, TensorFlow, PyTorch, Keras, LLMs, RAG & embeddings, multi-agent systems, model evaluation

**Cloud & DevOps:** AWS (Lambda, S3, Bedrock, Cognito, EC2, API Gateway), Azure AI, ETL pipelines, Git, CI/CD

**Certifications:** AWS Certified Cloud Practitioner, Cloud Computing: Core Concepts, The Complete SQL Bootcamp

## EXPERIENCE

### Amazon Web Services

Toronto, ON, Canada

*Solutions Architect Intern* | Python, React, TypeScript, Java, Spring Boot, AWS

*May 2025 – Aug. 2025*

- Cut exploratory data analysis from **4 hours to under 2 minutes** by building a full-stack platform (Next.js/React, Spring Boot/Java) where a **multi-agent Amazon Bedrock** system generates data visualizations/insights from **10GB+** datasets
- Architected secure, multi-tenant cloud infrastructure across **8+ AWS services** (Cognito JWT/RBAC, S3, Lambda, API Gateway) with EC2 Auto Scaling and load balancing, achieving **99.9% availability** at **sub-2s** latency
- Developed an **LLM-powered** code-generation feature (Amazon Bedrock) that writes Python/R data-analysis scripts from natural-language prompts, **cutting manual coding time by 80%**
- Created an outbound messaging platform (React, Flask, AWS Amplify) that automated personalized communications across **150+ customer accounts**, **cutting manual prep time 85%** and driving adoption by the AWS Cloud Sales Center

### Bond Brand Loyalty

Toronto, ON, Canada

*Software Engineering Intern* | Python, Azure AI, Snowflake, Scikit-learn, LLMs

*May 2024 – Aug. 2024*

- Built a **RAG-powered** brainstorming tool in Streamlit for **50+ marketers**, generating copy and concept artwork via **LLMs** (GPT-4o) and DALL-E and retrieving similar campaigns from a **75K+ ad dataset** using Azure OpenAI embeddings
- Engineered a Python **ETL pipeline** for a **\$25B grocery client**, scraping competitor flyers with BeautifulSoup and classifying loyalty offers via OCR and NLP (Azure AI) into Snowflake, **cutting manual labour hours by 11%**
- Shipped a Snowflake Application (Snowpark, Scikit-learn, Streamlit) to production for **250+ employees**, automating key ML lifecycle tasks such as model selection, feature-importance, and cross-nested **model evaluation** for bias-free tuning

### Elim Solutions

Markham, ON, Canada

*Software Developer Intern* | Angular, Node.js, Express, MongoDB, TypeScript, AWS, Git

*May 2023 – Aug. 2023*

- Built a full-stack employee-feedback platform with **micro-frontend architecture** (Angular, Node.js, MongoDB), featuring a REST API and encrypted, anonymized data storage, now adopted across a **30-person workforce**
- Resolved **50+ Jira tickets** across two Oracle NetSuite e-commerce platforms in an Agile team, building responsive UI components and custom **SuiteScript** and Handlebars backend helpers via **Git-based CI/CD** pipelines

### The Buckmaster Institute

Vancouver, BC, Canada

*Software Developer Intern* | Python, OpenCV, Scikit-learn, Pandas, NumPy

*May 2022 – Aug. 2022*

- Engineered a custom computer-vision pipeline (OpenCV, Scikit-learn) for musical-score recognition, boosting notehead detection accuracy to **95%** across **50+ scores** via threshold and dual-template optimization
- Built a Python validation framework benchmarking **25K+** detected coordinates against ground truth to flag false positives, exporting clean CSV datasets and error-visualization charts for downstream machine learning research

## LEADERSHIP & PROJECTS

### Western AI

London, ON, Canada

*Senior Director of Projects & Software Developer*

*Sep. 2022 – Apr. 2024*

- Built a **Convolutional Neural Network** (TensorFlow/Keras) for image classification reaching **99%+ accuracy**, and benchmarked Random Forest against neural networks (Perceptron, MLP) on loan-status prediction using F1-score and AUC
- Mentored **18 developers** across 3 teams building ML, computer-vision, and generative-AI projects, with all teams invited to present at **CUCAI**, Canada's largest undergraduate AI conference

### Spotify Track Popularity Predictor 🎧 | Python, Scikit-learn, Pandas, NumPy

- Built regression and classification ML pipelines on a **114K-track** dataset to predict song popularity from audio features, benchmarking **8 models** with stratified cross-validation and feature-importance analysis to reach **0.87 ROC-AUC**

### News 4 U — Software Engineering Capstone 📰 | React, PostgreSQL, pgvector, Google Gemini, HuggingFace

- Built a full-stack AI news platform (React, Node.js/Express) with a **RAG** pipeline over **PostgreSQL + pgvector** semantic search, Google Gemini embeddings for adaptive rewriting, and HuggingFace Qwen for zero-shot readability classification