

# Teddy Malhan

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## EDUCATION

### Simon Fraser University

*Bachelor of Computer Science*

Burnaby, BC

May 2027 (*expected*)

- GPA: 3.81, Dean's List (2024 – Present)
- Courses: Data Structures & Algorithms, Artificial Intelligence, Object-Oriented Programming, Web Development

## SKILLS

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

**Libraries/Frameworks:** Spring Boot, FastAPI, Flask, Django, LangGraph, LangChain, React.js, Node.js

**Databases/Cloud:** PostgreSQL, Redis, MongoDB, AWS (EC2, RDS, S3, DynamoDB), GCP, Kubernetes, Docker

## EXPERIENCE

### Electronic Arts

May 2025 – Aug 2025

*Software Engineer Intern*

*Vancouver, BC*

- Shipped a microservice for automated **GraphQL** querying on 1.2M+ records for 100+ producers using **Amazon Web Services (AWS)**, React.js, and Python (FastAPI).
- Delivered 50% reported time savings by implementing **retrieval-augmented generation (RAG)** using **LangChain**, **PostgreSQL** pgvector and the GPT 4.1 LLM.
- Engineered an InnerSource offering for FC's custom publish flow with **gRPC** and **Protocol Buffers**, reducing integration time by 60% for internal teams.

### Dialpad

Jan 2025 – Apr 2025

*Software Engineer Intern*

*Vancouver, BC*

- Architected Digital Scorecards feature for EAP pilot using **object-oriented** design patterns (Factory, Strategy), supporting grading flows for **5000+ conversations** with **Vue.js**, **TypeScript** and **Django (Python)**.
- Engineered RBAC feature flags for Randstad, driving a 10% decrease in operational costs across 600K+ clients.
- Consolidated 20+ dashboards from **Datadog** to Observe, unifying logs & traces, reducing MTTR by 30%.

### SFU Blueprint

Sep 2024 – Apr 2025

*Software Engineer Intern*

*Vancouver, BC*

- Redesigned full-stack website for Reel Youth using **TypeScript**, **React**, and **Next.js**.
- Integrated **Supabase (PostgreSQL)** database for real-time updates and deployed on **Vercel**.

## PROJECTS

### Kaeru | *AI subscription cancellation* **AWS Amplify, Bedrock, Step Functions, Lambda, Plaid, Next.js**

- Architected fraud detection engine using Sonnet 4 (Bedrock) and rule-based heuristics to analyze 10K+ daily Plaid transactions, reducing analyst review by 60%.
- Built automated cancellation system integrating merchant APIs and AI voice agents (Vapi) to execute subscription terminations and dispute filings at scale.
- Orchestrated fault-tolerant workflows with Step Functions and Lambda handling retries, fallbacks, and state persistence via DynamoDB, improving completion rate by 25%.

### WasteWise | *AI based waste sorting tool*

**Python, FastAPI, Neo4j, React Native**

- Architected a FAISS based RAG pipeline to sort waste into bins, utilizing OpenAI Embeddings and Neo4j, parsing 500+ mappings of food items to bins.
- Built React Native (Expo) mobile app with react-native-vision-camera for real-time waste classification.
- Integrated YOLO model trained on TrashNet dataset with TensorFlow Lite for on-device image recognition.
- Ensured 100% test coverage through pytest, writing 120+ unit tests, applying Test-Driven Development (TDD) for a robust design.

## AWARDS AND LEADERSHIP

- Awards: Mountain Madness Hackathon Winner (2025), Google Hackathon Winner (2024)
- Leadership: SFU OS Dev Club (Tech Coordinator, Fall 2025), Develop For Good (Engineering Lead, W25)