

YUVRAJ SONDH

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Education

University of Calgary

2024 – 2028

Bachelor of Computer Science • GPA: 3.6/4.0 • Dean's List • Jason Lang Scholarship

Calgary, AB

Relevant Coursework

Data Structures & Algorithms, Object-Oriented Programming, Software Engineering, Computing Machinery & Assembly, Information Security & Privacy, Theoretical Foundations of CS

Experience

MASIV — Mercedes and Singh Innovative Ventures

May 2026 – Present

Software Engineering Intern

Calgary, AB

- Built and deployed an **AI-assisted procurement platform** to automate vendor discovery, outreach, quote comparison, and follow-ups for active users using **React**, **React Native**, **TypeScript**, **PostgreSQL**, **OpenAI APIs**, and email/SMS/voice integrations.
- Implemented production subscriptions and cloud infrastructure to support tiered plans, credit top-ups, and reliable SaaS delivery using **Stripe**, secure webhooks, **AWS EC2/S3/RDS**, **PostgreSQL**, and usage metering.
- Developed mobile field and site-coordination workflows to turn project information into tasks, issues, and communications using **React Native**, **TestFlight**, RAG/GraphRAG, **LangChain**, **LangGraph**, agentic tool calling, **NetworkX**, and **Neo4j**.
- Created browser-based CAD and urban-analysis features to accelerate parcel, solar, wind, and 3D design studies using **React**, **Three.js**, **ArcGIS**, **Rhino/Grasshopper**, **Ladybug Tools**, and AR/VR/MR workflows.

AI Club, University of Calgary

May 2026 – Aug 2026

AI Software Engineer — AI Learning Platform Project

Calgary, AB

- Increased learning continuity for **K–5 students** at a volunteer-run night school in Pakistan by building an **open-source GenAI literacy platform** with a **React/TypeScript** frontend and **Python/Django** backend in partnership with the **Werklund School of Education**.
- Personalized learning under irregular attendance by designing **heuristic optimization** and **PostgreSQL** workflows using GenAI and open educational APIs while keeping learning resources free.

Projects

ML Fraud Detection Pipeline | *Python, TensorFlow, Flask, PostgreSQL, React, Docker*

Feb 2026 – Apr 2026

- Trained a **TensorFlow neural network** on **284,807 transactions**, achieving **89% recall** and **0.989 ROC-AUC** by addressing a **0.17% class imbalance** with balanced class weights.
- Deployed a **Dockerized Flask/React monitoring app** to track PostgreSQL prediction logs and Evidently AI drift checks across **Render** and **Vercel**, with end-to-end pytest coverage.

CityScope Calgary | *React, Three.js, Python, Flask, SQLAlchemy, Groq LLM*

Apr 2026

- Built a **3D city intelligence dashboard** to explore Calgary geospatial data using **React** and **Three.js**, rendering **125 buildings** and **173 street centerlines** with natural-language search.
- Added LLM query routing, daily sun-position simulation, and per-user save/load using **Groq**, **Flask**, and **SQLAlchemy**, then deployed the application across **Render** and **Vercel**.

Technical Skills

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

Web & Mobile: React, React Native, Three.js, Flask, FastAPI, Django, REST APIs, TestFlight

AI & Data: OpenAI API, LangChain, LangGraph, RAG/GraphRAG, agentic workflows, NetworkX, Neo4j, TensorFlow/Keras, PostgreSQL

Cloud & Developer Tools: AWS (EC2, S3, RDS), Stripe, Docker, Git/GitHub, Render, Vercel, Firebase, n8n

AEC & 3D: Rhino, Grasshopper, Ladybug Tools, ArcGIS, Three.js, AR/VR/MR

Certification: Google AI Essentials (March 2026)