

KOUSHAMOUZESH

+1 604 782 2974 koushaamouzesh@gmail.com Portfolio LinkedIn GitHub Vancouver, BC

Education

Simon Fraser University

Bachelor of Science in Computer Science, GPA: 3.84

Burnaby, Canada

Sept 2021 – Apr 2026

Skills

Languages: Python, JavaScript, Java, R, C++, C, C#, SQL, TypeScript, HTML, CSS, Batch, Bash

Frameworks: Node.js, React.js, Next.js, PyTorch, TensorFlow, Pandas, Spark, LangChain, MongoDB, Flask, .NET

Tools: Git, AWS SageMaker, AWS DynamoDB, AWS Redshift, GCP, Docker, BluePrism

Experience

Insurance Corporation of British Columbia (ICBC)

North Vancouver, BC

Software Developer Co-op, Hybrid

May 2025 – Aug 2025

- Led 3 AWS cloud migration projects related to ICBC Claim Center, leveraging **JavaScript**, **Python**, and **BluePrism**
- Improved payload efficiency by optimizing **PostgreSQL** queries for **AWS Redshift**
- Developed **Batch** and **Python** scripts for automated claim updates via **Redshift** connections
- Partnered with ICBC stakeholders to create **Excel** QA reports for requirements analysis and acceptance testing

SFU Blueprint

Burnaby, BC

Software Development Technical Lead, Hybrid

Jun 2024 – Aug 2025

- Led a team of six developers to design an AI chatbot with **LangChain** for MOSAIC, an organization helping newcomers in Canada
- Co-designed a **Flask** API to handle **Neo4j** queries for information retrieval by the LangChain Agent
- Built a **React** + **Flask** admin portal that ingests client CSV uploads to automate updates on the database used by the chatbot

Forgeahead Solutions

Surrey, BC

Software Engineer (Machine Learning) Co-op, Hybrid

Oct 2023 – Aug 2024

GEN AI Story Board & Clip Creation Platform

- Proposed architecture for a generative AI platform to produce storyboards and animated clips with simple user prompts
- Implemented **Python** few-shot training scripts for image diffusion pipelines on HuggingFace with **PyTorch**
- Deployed the diffusion model to **AWS SageMaker** to utilize GPU-powered endpoints for measuring latency and processing time

Early Breast Cancer Prediction Platform

- Designed a pipeline converting medical texts into an AI avatar video reading a medical screening report
- Trained RESNet neural networks using **PyTorch** and Transfer learning for key point detection on Avatar's images
- Implemented face-swap pipeline with **Python** and **OpenCV** for adding animated features on Avatar's face

Projects

Fraud Detection with Variational AutoEncoder (VAE)

Python, PyTorch, Pandas

Jul 2025 - Aug 2025

- Designed a VAE on the credit card fraud dataset to generate synthetic fraudulent transactions for anomaly detection with **PyTorch**
- Built data processing and visualization pipelines with **Pandas**, **Matplotlib** for principal component analysis and feature selection
- Optimized the VAE results by tuning hyperparameters and architecture, measuring reconstruction error, and visualizing outputs

Where-to-Eat Mobile App

JavaScript, C#, React Native, TypeScript, .NET, LangChain

Dec 2024 – Jan 2025

- Built an iOS app integrating GPT reasoning and **GCP API** for restaurant suggestion based on the user's preference and past visits
- Designed interactive map interface with **TypeScript** and **CSS** to show recommended places with GPT's summary of the place
- Developed a **LangChain** GPT agent hosted on a **.NET** endpoint for review summarization of places and analyzing user preferences

NewLink: SFU's Newcomer Platform

JavaScript, Llama 3, React.js, Node.js, MongoDB

May 2024 – Jun 2024

- Supervised a team of 4 in Stormhacks to build a social + informational web app for newcomers at SFU
- Fine-tuned **Llama 3** as a **LangChain** agent for Q&A on SFU's history, cultural and key information needed for newcomers
- Developed **Node.js** APIs for real-time chat and authentication with **MongoDB** to store chat history and user information
- Designed homepage and AI chat room with **React.js** and **Tailwind** to support responsive layouts and animated visuals