Krish Rajani

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EDUCATION

University of Alberta

Edmonton, AB

BSc (Honors) in Computing Science

Aug. 2023 - Apr. 2027

• Relevant Courses: Programming Methodology, Discrete Math, Algorithms I, Basics of Machine Learning, Fundamentals of Computation I/II, File and Database Management, Object-Oriented Programming

EXPERIENCE

Software Developer Intern

Sept 2025 – Present

Apex Utilities

Edmonton, AB

Integrating an AI agent designed to accelerate ticket resolution and enhance customer support efficiency.

Software Engineer Intern

May 2025 - Sept 2025

Wrise

Calgary, AB (Remote)

- Implemented a full-stack AI platform using TypeScript and React to ingest and process up to 380 minutes of social media content per creator via OAuth2 REST APIs.
- \bullet Optimized video transcription pipeline, reducing processing time by 64% through zero-cost caption ingestion with SRT parsing and deduplication.
- Directed development of a fan-facing chatbot using LangChain, GPT-4.1, and RAG, achieving 99% relevance in qualitative testing.

Projects

FuelWise | MongoDB, Express.js, Node.js, React.js

- Engineered a fuel recommendation app that helps users achieve up to 8% fuel cost savings and 7% fueling volume gain by analyzing live station pricing and geolocation.
- Reduced redundant backend API calls by 80% by implementing user-triggered fetch logic, optimizing performance
 and reducing latency during fuel station retrieval.
- Ranked fuel stations by distance and price using Google Maps Distance Matrix API, enabling accurate travel time estimates and smarter fuel recommendations.

Interactive Digit Classifier | Flask, React.js, Python, NumPy

- Deployed a web-based digit recognition tool with a React frontend for drawing/uploading digits and a Flask backend serving a custom-trained neural network on MNIST.
- Built and trained a feedforward neural network from scratch using backpropagation, SGD, and sigmoid activations to achieve 96% accuracy.
- Visualised neural network predictions in-browser to support interpretability and user interaction with AI behaviour

Silent Signal | React.js, AWS Lambda, FastAPI, TensorFlow Hub

- Collaborated on a real-time ambient noise violation detector for distributed teams using Web Audio API, AWS Lambda, and FastAPI.
- Deployed Google's YAMNet model to classify microphone input into 521+ sound categories, achieving 95% accuracy on benchmark datasets such as UrbanSound8K.

LEADERSHIP EXPERIENCE

Assistant Director, CSW (TeamUp Science)

May 2024 - May 2025

Edmonton, AB

- Taught Python fundamentals to **20+** high school students during a workshop, improving their coding fluency as measured by live coding exercises and hands-on activities.
- Worked with mentors and volunteers to co-develop engaging lesson plans, emphasizing collaboration in curriculum design and student support.

TECHNICAL SKILLS

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

Frameworks & Libraries: ReactJS, NodeJS, ExpressJS, Redux, PyTorch, TensorFlow, scikit-learn

Databases & Cloud: PostgreSQL, MySQL, MongoDB, Amazon Web Services, Microsoft Azure, Google Cloud Platform

Developer Tools: Git/GitHub, Postman, Docker, Linux, Windows