Krish Rajani

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EDUCATION

University of Alberta Expected Graduation: Dec 2027

BSc (Honors) in Computing Science *Edmonton, AB*

- Relevant Courses: Algorithms, Software Engineering, Discrete Mathematics, Machine Learning, Computer Vision, File and Database Management, Object-Oriented Programming

EXPERIENCE

Software Development Intern Sept 2025 – Present

Apex Utilities *Leduc, AB*

- Developed an internal support bot using **Python**, Microsoft Azure, and GPT-4 embeddings on PostgreSQL vector storage to automate ticket classification, reducing manual triage workload by 10%.
- Built a **Python** data processing pipeline to score and filter knowledge base documents, reducing dataset size by 70% and improving retrieval quality.
- Automated file management and user provisioning tasks using PowerShell scripts, reducing manual operations by 2+ hours weekly across multiple departments.

Software Engineer Intern May 2025 – Sept 2025

Wrise *Calgary, AB*

- Implemented a full-stack web application using **React** and **TypeScript** in an agile development team, enabling real-time user interactions with creator-trained language models
- Optimized video transcription pipeline, cutting processing time by **60%** by adding SRT parsing and deduplication
- Developed a context-retrieval system using RAG and GPT-4, achieving high relevance in internal testing

PROJECTS

TradePulse | *Java, Spring Boot, React, TypeScript*

- Built a full-stack trading strategy backtester using **Java** and **Spring Boot** with a **React + TypeScript** frontend, enabling users to simulate mean reversion strategies on historical price data.
- Leveraged JUnit and Mockito, ensuring code reliability across market volatility and trade execution scenarios.
- Designed RESTful APIs with JPA persistence, supporting backtest execution and historical result retrieval.

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

- Engineered a fuel recommendation app using **React**, **Node.js**, and **MongoDB** that reduced fueling costs by **8%** for **100+** users, by implementing live station price analysis and geolocation-based optimization.
- Architected a 3-tier caching system with request collapsing and adaptive rate limiting, cutting API costs by **90%**

Silent Signal *(Hackathon)* | *React.js, Python, AWS*

- Built a real-time noise violation detection prototype using **React.js**, **Python**, and **AWS Lambda**, leveraging Google's YAMNet model to classify 521+ sound categories with 95% accuracy.

LEADERSHIP EXPERIENCE

Assistant Director, Computing Science May 2024 – May 2025

TeamUp Science *Edmonton, AB*

- Organized and taught Python fundamentals to 20+ high school students during a workshop, improving coding fluency through live exercises.
- Coordinated with mentors and volunteers to develop engaging lesson plans, emphasizing collaboration in curriculum design and student support.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, C/C++, SQL, HTML, CSS
Frameworks & Libraries: Spring Boot, ReactJS, NodeJS, ExpressJS, Redux
Databases & Cloud: PostgreSQL, MySQL, MongoDB, AWS, Microsoft Azure, Google Cloud Platform
Developer Tools: Git/GitHub, Postman, Docker, Kubernetes, Linux, Windows