ADITYA PATEL

(825) 333-0911 | adityadi@ualberta.ca
linkedin.com/in/adityapatel04 | github.com/adityadipakpatel

EDUCATION

Bachelor of Science in Computing Science — Edmonton, AB
University of Alberta — *Expected Graduation: 2027*

Relevant Courses: Introduction to File and Database Management | Algorithms | Machine Learning | Computer Organization and Architecture | Introduction to Software Engineering

EXPERIENCE

AI Software Developer Intern — Remote
JuliGerm — *Apr 2025 - Aug 2025*

- Developed and maintained AI-powered backend systems for agricultural data analysis, including a search engine to track crop health, soil quality, water usage, and other key farming indicators.
- Integrated local weather and satellite data to deliver predictive insights for farmers, and deployed solutions on Microsoft Azure for scalability and reliability.

AI, Software Development Intern — Edmonton, AB
MedXAI — *July 2024 - August 2025*

- Developed a generative model with 90% accuracy to predict future COVID-19 trends using data from Worldometer.
- Implemented a classification model to analyze and identify trends in COVID-19 case data.
- Designed and built visualizations, including plots and graphs, to present current and predicted trends effectively.
- Conducted in-depth data analysis on over 100 datasets to uncover artificial trends, resulting in actionable insights for improved forecasting.

ML, Web Development Intern — Edmonton, AB
UAIS (Undergraduate Artificial Intelligence Society) — *January 2024 - April 2024*

- Developed and integrated ML and NLP models for industrial risk report analysis, achieving 85% accuracy.
- Implemented OpenAI API for report generation, reducing manual effort by 40%.
- Optimized large datasets using advanced preprocessing techniques like PCA and feature scaling, improving model efficiency by 10% and boosting risk prediction accuracy by ~20%.
- Collaborated with the team to deliver AI-driven safety solutions, ensuring easy adoption by non-technical users.

Web Development Intern — Ahmedabad, IN
Astha Maternity And Nursing Home — *April 2023 - July 2023*

- Developed a high-performance backend patient management system, optimizing database indexing and queries, reducing response time by 50% (from ~450ms to ~200ms).
- Utilized technologies such as Flask, Django, HTML, CSS, and JavaScript to build the system.
- Optimized page load times (~250 ms) and implemented SEO best practices to increase website traffic.

PROJECTS

BearBazaar: A campus marketplace | React.js, Express.js, Prisma, SQLite, Node.js, REST API — Edmonton, AB
HackED 2025 | Github Repo: github.com/adityadipakpatel/BearBazaar — *February 2025*

- Developed a full-stack web app for campus product listings with React.js frontend and Express.js + Prisma + SQL backend.
- Designed RESTful APIs for authentication, product management, and direct messaging with real-time updates.
- Implemented secure credential updates, profile images, and optimized database queries for efficiency.

Resume Parser, LaTeX PDF Generator | Python, JavaScript, HTML, CSS, LLM API, PdfLatex API — Edmonton, AB
GHacks 2024 — *August 2024*

- Led a team in developing a resume parser and LaTeX PDF generator during the Google Developer Student Club (GDSC) Hackathon. The project allowed users to input resume details via a web interface, which were parsed using an LLM API to generate a PDF using a LaTeX template.
- Implemented backend features to convert user inputs into a LaTeX format using Python and pdflatex, and built the frontend interface with HTML, CSS, and JavaScript.
- Coordinated API integration for LLM text parsing, ensuring seamless interaction between the frontend and backend systems.

RareQuest: Disease Awareness Game | HTML, CSS, JavaScript — Montreal, QC
Code to Give (Morgan Stanley) 2024 | Github Repo: github.com/adityadipakpatel/RQMO12 — *May 2024*

- Developed RareQuest during the "Code to Give" Hackathon to raise awareness about rare diseases.
- Implemented game mechanics and challenges in JavaScript to educate players about diagnosing rare illnesses.
- Utilized front-end design and back-end logic to create an interactive 2D game map.
- Managed database operations to track player progress and game data.

Sign Language Detector Project | OpenCV, TensorFlow, Python, Jupyter Notebooks — Edmonton, AB
HackED 2024 | Github Repo: github.com/adityadipakpatel/Sign-Language-Detector — *January 2024*

- Developed a real-time sign language detection web app using TensorFlow, Computer Vision, Object Detection, Python, and Deep Learning SSD.
- Developed a real-time system to interpret sign language gestures into alphabets and words, enabling digital communication for Deaf and Mute individuals.
- Achieved 90% accuracy in gesture recognition, improving communication speed and efficiency.

EXTRACURRICULAR PROJECTS

CryptoHash: Cryptographic Algorithm (SHA256) Implementation Project | Python, Cryptography Algorithms, Cybersecurity principles

- Implemented the SHA256 algorithm in Python to produce 256-bit hash values from user-provided messages, demonstrating strong skills in cryptography, cybersecurity, and software development with a clear focus on security.
- Demonstrated adeptness in system administration by ensuring compatibility with the SHA256 command-line utility in Unix/Linux environments.

WeatherSage: Weather Information Retriever Project | Python, API (fetching weather data), JSON (data interchange)

- Fetched weather data using OpenWeatherMap API.
- Utilized Python to make API requests, process user inputs, and manage API responses.
- Extracted and processed JSON data, performed file operations, and gained hands-on experience in Python scripting and API integration.

SecureText: Text Encryption Tool | Python, Cryptography concepts and algorithms, Security principles

- Developed SecureText, a tool that allows users to encrypt and decrypt text using a two-step process with two passcodes, ensuring security and privacy.
- Implemented encryption and decryption scripts in Python to convert text into long numeric strings and retrieve the original text with corresponding passcodes.
- Demonstrated proficiency in cryptography by ensuring data integrity and protecting sensitive information during transmission.

TECHNICAL SKILLS

Languages/Frameworks: Python, Java, JavaScript, SQL, C, C++, HTML, SQL, RISC-V, Django, Flask
Dev Tools/Technologies: Android Studio, Postman, Git, GitHub, Version Control Systems, ML, Web, Cloud, Networking, OOPs, Data Structures & Algorithms
Interpersonal Skills: Time Management, Team Management, Leadership, Teamwork, Adaptability, Communication Skills