

DHAIRYA PRAJAPATI

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EDUCATION

University of Alberta | Bachelor of Science in Computing Science – Business Minor

Expected Grad. Apr 2027

Relevant Coursework:

- Data Structures, Algorithms, File and Database Management, Software Engineering and Architecture
- Quantitative Economics, Operations Management, Financial Accounting, Behaviour in Organizations

EXPERIENCE

Software Developer Intern

May 2025 - Dec 2025

Government of Alberta - Ministry of Environment and Protected Areas (IT Co-op Student)

- **Engineered Python scripts** to automate collation and validation of compliance report data, reducing manual processing time by over 60% and minimizing human error across datasets from 200+ facilities
- Developed and maintained **20+ configuration files for ingestion pipelines**, enabling consistent parsing and transformation of structured benchmark data from newly regulated oil and gas facilities
- Integrated **SQL-based storage solutions with Python ETL tools**, improving data retrieval times by 35% and supporting timely, data-driven regulatory enforcement decisions
- Authored **unit and integration tests** covering 85% of codebase logic within data pipeline modules, improving system reliability and simplifying future maintenance and onboarding

Software Engineering Intern

May 2024 - Aug 2024

ShoeBox Studios

- Collaborated with the design team to **optimize user interfaces** for the product using **React and NodeJS**, ensuring a seamless and engaging user experience
- Assisted in maintaining the product's databases, utilized **Docker** for containerization, **Kubernetes** for orchestration, ensuring efficient data storage, retrieval, and deployment of game components
- **Led the development of the company's official website**, utilizing HTML, CSS, and JavaScript, and integrated dynamic elements to showcase the company's portfolio, game updates, and team information effectively

EXTRACURRICULARS

Software Team and Admin Co-Lead

Jan 2024 - Present

AlbertaSat

- Configured the **Zybo Z7** to simulate an On-Board Computer (OBC) for efficient troubleshooting and **unit testing** of subsystems, which facilitated hardware-in-the-loop testing and ensured early detection of potential issues
- Developed a **Python-based simulation of the UHF Transceiver subsystem** for the Ex-Altas 3 satellite, enabling comprehensive testing and validation
- **Coordinated non-technical operations for a 200+ member** satellite project team, overseeing onboarding, communications, social media, and event logistics to support mission milestones

HealthMap360 (Personal Project) | React, Typescript, Java, Spring Boot, PostgreSQL, Docker, GitHub Actions

- Engineered HealthMap360, a **full-stack** outbreak monitoring system integrating geospatial visualization, time-series trend analysis, and algorithmic resource allocation
- Implemented **ingestion pipelines** for CSV hospital reports and public API health data, enriching raw inputs with demographic data for actionable insights
- **Developed a recommendation engine** to optimize vaccine distribution based on outbreak severity and population density and **deployed via Docker on Render**, with automated testing and linting through GitHub Actions

TECHNICAL SKILLS

Languages: Python, JavaScript, Typescript, Java, C, C++, HTML, CSS, SQL, PostgreSQL

Technologies: React, Flask, NodeJS, MongoDB, Bootstrap, ExpressJS, NextJS, Spring Boot, Tailwind

Tools: Docker, Render, AWS, R, Linux, APIs, Microsoft Suite, Google Workspace, Git, Firebase, Power BI, Tableau