Rajan Sapkota



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Portfolio | GitHub | LinkedIn | Vancouver, BC

Technical Skills

Languages: C++, C, Python, Java, JavaScript, R, HTML/CSS, Racket, ARM Assembly, SQL

Tools/Environment: Excel, Unix/Linux, Git/GitHub, PowerBI, VS Code, Jenkins, IntelliJ, RStudio, Jupyter Notebook, Node.js

Frameworks/Libraries: React, JUnit5, Unittest, Valgrind, Java Swing, Matplotlib, Chart.js, Vite, Ansible, Docker

Technical Experience

Software Developer | Machine Learning, Firebase, Full-stack Development *LEAP AI*

Dec 2023- Present Vancouver, Canada

- Engineered an AI academic advising chatbot using the PaLM 2 model to answer course-related queries for 5,000+ students
- Increased end-to-end functionality by implementing an admin page that allows administrators to review and validate feedback provided by the AI, using **Firebase** and **MongoDB** for user authentication and chat history storage
- Boosted AI response accuracy by **40%** through the strategic scraping of Sauder's course information using **Selenium**, transforming it into structured documents, and employing **Voyager 2** for enhanced query embedding

Data Analyst Intern | Python, Web scraping, REST API

July - Sept 2022

Coca Cola Company

Manila, Philippines

- Increased customer engagement by **55%** by scraping data from the web using Python Beautiful Soup and Google Search API to identify underrepresented audiences
- Consolidated marketing data by normalising 130,000+ data points to reduce redundancies and minimise entry errors
- Elevated intra-organization communication by **debriefing** executives about the project via a slide-show presentation

Technical Projects and Other Experiences

Modified NLP To Assist Healthcare Professionals (NWPlus Hackathon) | BERT, Pinecone, Firebase, Flask, Git

**MediFetch AI*

Vancouver, Canada**

Vancouver, Canada

- Collaborated within a team to develop a healthcare solution focusing on enhancing patient care through **streamlined medical history retrieval**, allowing healthcare professionals to **query** and **retrieve** information in patients' medical history
- Employed advanced NLP technologies, including BERT and Pinecone indexing to process and organize medical documents
- Successfully managed creating a user-friendly frontend with **React** and handling database operations with **Firebase**

Ticket Scraping and Notifying App | React/Chrome Extensions, Python, Web Scraping, AWS

Nov 2023- Present

Vancouver, Canada

- Developed a ticket scraping app with **Playwright** and **threading** which alerts users when concert tickets match their price range
- Developed a streamlined **system architecture** utilizing a **SQL**-based watchlist to dynamically allocate scape tasks to a scrape object, enhancing site monitoring efficiency and optimizing resource utilization
- Realized complete automation of ticket scraping, price detection and email notifications by employing **AWS EC2** and **Mailchimp President/Founder**, *AMS Volleyball Club at UBC* | *Vancouver, Canada*Dec 2021 Present
 - Garnered 150+ paid members within one year of operation by utilizing promotional resources, social media and networks
 - Established a **structured organization** by recruiting prospective internal members and discussing organizational logistics
 - Hosted paid and unpaid events for 100+ members/non-members by collaborating with internal and external stakeholders

Education & Achievement

University of British Columbia, Bachelors of Computer Science and Business

Sept 2021 - May 2025

Awards: International Entrance Scholarship and Outstanding International Student Award (\$100,000)

Key Courses: Data Structures and Algorithms, Software Construction, Relational Databases, Financial Modeling and Excel