Rajan Sapkota

UBC Science Co-op
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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

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Technical Experience

Software Developer | Machine Learning, Firebase, Full-stack Development   *Dec 2023- Present*
LEAP AI   *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

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Technical Projects and Other Experiences

Real-Time Language Translation Chat App (NWPlus Hackathon) | React, Node.js, Socket.io, Git   *Nov 2023*
Switch!
- Successfully designed a chat app enabling **real-time translation** between users speaking different languages
- Allowed instant and efficient communication between users by integrating **Socket.io** for web sockets, using **Node.js** for robust backend functionality, and employing **React** for an engaging and intuitive front-end user interface
- Spearheaded collaboration and project management by utilizing **Git** for **version control**, ensuring efficient teamwork and meeting project deadlines within the intensive hackathon environment

Interactive Music Playlist and Social Networking Platform | React, Oracle DBMS, SQL   *Sept 2023 - Dec 2023*
Musicultured
- Engineered a dynamic front-end interface using React and CSS, enabling users to interact with playlist, songs and friends
- Enabled full-stack performance by pairing **Node.js** and **Oracle SQL** database on **API** endpoints, ensuring efficient data retrieval
- Facilitated team collaboration and **CI** by implementing robust version control with **Git** in a 4-member team

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

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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