Rajveer Sodhi

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Education

Incoming **Sc.M Computer Science** at **Brown University**, Providence, RI	Sep 2025 - May 2027
The University of British Columbia, Kelowna, BC	Sep 2021 - Jun 2025

B.Sc. Computer Science Honours - GPA: 4.33

Awards: Dean's List (2021, 2022), Deputy Vice Chancellor's Scholarship (2021), CMPS Undergraduate Award Nomination (2021)

Experience

Data Analyst Intern / Data POEM, Santa Clara, USA (Remote) — May 2024 - Sep 2024
- Developed scalable connector modules using Mage.ai to interface with PostgreSQL and S3, facilitating the retrieval and transformation of website analytics data from multiple advertisement channels for machine learning model pipelines.
- Focused on data validation and verification to ensure the integrity of machine learning models.

Website Administrator / Niteo Africa, Kelowna, BC — Sep 2023 - Mar 2025
- Administered Niteo Africa's WordPress-based website, incorporating blog posts and event information and diligently updating website plugins, resulting in a 150% increase in website viewership since assuming the role.
- Communicated concerns and insights to the Executive Director through detailed monthly reports to ensure regular progress.

Undergraduate Researcher / UBC Okanagan, Kelowna, BC — Sep 2023 - Jul 2024
- Conducted a study in Human-Computer Interaction (HCI) with over 20 participants to investigate the efficiency of cutting-edge command selection techniques using head-mounted displays, such as Hand-Proximate User Interface (HPUI) and gaze-tracked input.
- Explored the principles of In-Vehicle Infotainment Systems and built implementations of HPUI with C# and the Unity XR Toolkit.

Software Developer Intern / UBC Okanagan, Kelowna, BC — Sep 2023 - Dec 2023
- Spearheaded the development of a module within a graphical Decision Support System in Java for long-term degree planning, which is expected to help over 10,000 students plan courses and streamline discussions with academic advisors.
- Added support for over 120 complex degree configurations and used Google CP-SAT Solver to build an optimization model for optimal plan generation, along with various code refactoring and improvements to the optimizer.

Projects

Full-Stack AI-Powered Budgeting Website / **Next.js, TypeScript, Plaid API, Gemini API, Pinecone, PostgreSQL** — Apr 2025
- Developed a full-stack budgeting platform for my final-year capstone to help users visualize and manage spending habits using AI-driven insights and a user context-aware chatbot powered by Gemini.
- Engineered a vector-based transaction retrieval system by embedding and storing user financial data from Plaid in Pinecone and PostgreSQL for fast, semantic querying.

Flight Tracking macOS App / **Swift, SwiftUI, FastAPI, Redis** — Feb 2025
- Developed a macOS menubar app using Swift that displays real-time flight data from the Aviation-Edge API
- Implemented a FastAPI server for the backend with Redis caching.

Portfolio Website / **Next.js, Tailwind CSS, TypeScript, Netlify** — Aug 2024
- Created a personal website showcasing my technical skills and work experience. Also added a page showcasing iOS icon designs.
- Implemented the Stripe API for payments and deployed with Netlify.

E-Learning Platform / **Python, HTML, CSS, JavaScript, MySQL** — Apr 2024
- Collaborated in developing a Flask-based full-stack e-learning platform, employing Agile methodologies, CI/CD practices, UML for system design, and Test-Driven Development (TDD) with Selenium for automated testing and deployment to ensure quality.
- Implemented core features like user and course management, discussion portals, assignment submissions, and grading with jQuery.

Sign Langauge to English Converter (Hackathon Winner) / **Python, HTML, CSS, JavaScript** — Jan 2024
- Led a cross-functional team in developing a full-stack website, using Node.js to translate American Sign Language into English, integrating a gesture-recognition machine learning model developed with Keras and OpenCV.
- Implemented the Google Translate and Text-to-Speech API to enhance the project's capabilities by generating multilingual text and speech outputs for the translations.

Skills

Languages: Java, Python, R, C#, Kotlin, JavaScript, TypeScript, Swift
Tools: Unity, GitHub, Tableau, Firebase, Android Studio, MySQL, MongoDB, PostgreSQL, Postman, Redis, Mage.ai, S3, Postman, Singer
Web Development: Tailwind CSS, Bootstrap, Flask, Next.js, React, Node.js, Express.js, Axios, FastAPI, jQuery, PHP
Frameworks & Libraries: Pandas, Seaborn, MatPlotLib, NumPy, JUnit, Keras, OpenCV, Selenium, SQLAlchemy, Prisma, Mongoose