Rajveer Sodhi

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Education

The University of British Columbia (UBC), Kelowna, BC   Sep 2021 - Apr 2026
B.Sc. Honours in Computer Science and Minor in Data Science - GPA: 4.33
Awards: Dean's List (2021, 2022), Deputy Vice Chancellor's Scholarship (2021), CMPS Undergraduate Award Nomination (2021)

Skills

Languages: Java, Python, R, C#, Kotlin, JavaScript, TypeScript
Tools: Unity, GitHub, Tableau, Power BI, Firebase, Android Studio, MySQL, MongoDB
Web Development: HTML, CSS, Tailwind CSS, Bootstrap, Flask, Next.js, React.js, Node.js, Express.js, Axios, Mongoose
Frameworks & Libraries: Pandas, Seaborn, MatPlotLib, NumPy, JUnit, Keras, OpenCV, Selenium

Experience

Undergraduate Researcher / UBC Okanagan, Kelowna, BC   Sep 2023 - Present
- 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.

Website Administrator / Niteo Africa, Kelowna, BC   Sep 2023 - Present
- 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.

Teaching Assistant / UBC Okanagan, Kelowna, BC   Jan 2024 - Apr 2024
- Delivered lab instruction and meticulously evaluated assignments for over 60 students in an introductory computer science course.
- Executed invigilation duties, supported lecture activities, assessed exams, and provided academic assistance to over 200 students.

Supplemental Learning Leader / UBC Okanagan, Kelowna, BC   Sep 2023 - Apr 2024
- Facilitated student comprehension in calculus courses by conducting review sessions and office hours, benefiting over 300 students.
- Collaborated with instructors, ensuring alignment of supplementary materials and maintaining an active online presence by promptly addressing student queries and sharing timely announcements for an engaging academic environment.

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 an optimal plan, along with various code refactoring and improvements to the optimizer.

Projects

[Portfolio Website](#) / Next.ts, Bootstrap, Tailwind CSS, TypeScript   May 2024
- Created a personal website showcasing my technical skills and work experience. Also added a page showcasing iOS icon designs.
- Developed using the Next.ts framework in TypeScript and styled with Bootstrap. Implemented the Stripe API for payments.

[E-Learning Platform](#) / Python, HTML, CSS, JavaScript, SQL   Apr 2024
- Collaborated in developing a Flask-based 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 and performance.
- Implemented core features like user authentication, course management, discussion portals, assignment submissions, and grading.

[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.

[Ride-Sharing App Prototype](#) / Java, XML   Dec 2023
- Engineered a high-fidelity prototype for a ride-sharing app in Android Studio, seamlessly integrating the Google Maps API.
- Applied HCI fundamentals by conducting multiple rounds of requirements gathering and user testing to refine the user experience.
- Utilized object-oriented principles to ensure efficient code organization, enhancing maintainability and scalability of the app.