# Shehraj Singh

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## Work Experience

**Summer Research intern - University of Alberta** June 2022 – August 2022

- Improved SQLite database schema to optimize search results.
- Implemented multi-threaded algorithms to achieve better performance with high-precision floating point libraries such as mpfi, gmp.
- Languages used: C++, Java, SQL

**Undergraduate Researcher - University of Alberta** May 2021 – September 2021

- Front end developer in "The Great Periodic Path Hunt" program. Modified UI components to improve productivity of users. The purpose of the program is to study periodic orbits in finite obtuse triangles.
- Developed website for displaying and releasing the software.
- Technology used: Java, JavaFX, HTML/CSS

## Education & Awards

**University of Alberta** 2020 - 2024

*BSc. Specialization in Computing Science*

Coursework: Intro to Software Engineering, Practical Programming Methodology, Database management, Computer Architecture, Operating Systems, Intermediate Machine Learning.

Awards:
- Deans Honor Roll 2022 (4.0/4.0 GPA)
- Deans Honor Roll 2021 (3.9/4.0 GPA)
- University of Alberta International Country Scholarship
- University of Alberta Academic Scholarship 2020, 2021

## Skills

Languages: Python, C, C++, Java, Javascript, RISC-V Assembly

Frameworks: Django, ReactJS, Android SDK, SQL, MongoDB, Bootstrap, Tailwind, Git, Scikit-Learn

## Extra-Curriculars

**HappyMeals** Present

Developing a meal planner android application using Android SDK and Firebase in a team of six, following scrum practices. The App assists users to plan their inventories and shopping list according to their meal plans.

**Machine Learning Certificate** Aug - 2021

Achieved certification for basics of machine learning. Used techniques such as Bagging/Boosting, Classification, Clustering, etc. Built various machine learning models using Scikit-Learn & Pandas.

**Streaming Data Manager** Jan - 2022

A mini backend data manager for streaming services to keep track of users and their activities.

**Recommendr** Jan - 2021

Built a song 'Recommendr' using HTML, Tailwind, Django. The algorithm recommends songs based on images clicked by users in real-time, calculates image properties such as luminosity and saturation to determine the image mood