

# Akshpreet Singh

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## EDUCATION

**University of Calgary, Schulich School of Engineering**

September 2021 - Present | **Calgary, Canada**

- Bachelor of Engineering- Software Engineering

**The Senior Study II**

Graduated July 2020 | **Amritsar, India**

- Subjects- Physics, Chemistry, Mathematics, English (94%)

## PROJECTS

**Wildlife Rescue Automation System, Java**

- Developed a Java application, complemented with a UML design and JUnit tests, to streamline daily volunteer tasks, focusing on efficient animal care. The system prioritizes fixed-time tasks like medical treatments and then intelligently groups similar flexible tasks, such as feeding, within specified time-windows. Integrated with a MySQL database using the MySQLConnector, it fetches and updates real-time animal care requirements. It dynamically allocates tasks based on their duration and the number of available volunteers, reducing manual scheduling errors and ensuring timely care for all animals. The program also has a feature to call backup volunteers when essential to complete overlapping tasks, with an emphasis on preventing volunteer burnout.

**Obituary Generation System, React.js, AWS, Terraform**

- Developed a full-stack application leveraging AWS services, React, and ChatGPT API to automatically craft and vocalize obituaries for fictional entities. Implemented serverless architecture with Lambda functions for data processing and storage on DynamoDB. Integrated Amazon Polly for text-to-speech conversion and Cloudinary for media storage. Ensured cost-effectiveness by adhering to AWS's Free Tier limits and optimized resource allocation.

**Art Museum Database Management System, Python, SQL**

- Designed and developed a comprehensive MySQL-backed application to streamline the management of an art museum's diverse collection and exhibitions. The system, built in Python, integrates an Enhanced Entity-Relationship (EER) diagram transformed into a relational data model. It features a multi-faceted user interface, differentiating roles from administrators to end-users, enabling SQL command executions, intuitive data entry, and user-friendly database browsing. Embedded user management ensures role-specific access and secure login functionalities, enhancing both the utility and security of the platform.

## SKILLS

**Programming:** Python, C, C++, SQL, HTML, CSS, JavaScript

**Frameworks & Libraries:** React.js, Pandas, NumPy

**Cloud & Infrastructure:** AWS, Terraform

**Languages:** English, Hindi, Punjabi

## CERTIFICATION AND ACHIEVEMENTS

**Dean's List, Schulich School of Engineering**

Year 2021-2022

**Schulich Leadership, Schulich School of Engineering**

September 2022

- Learned foundational leadership, self-awareness, emotional intelligence, time management, and effective communication & teamwork.

**Schulich Entrepreneurship, Schulich School of Engineering**

September 2022

- Entrepreneurial advancements and development in the field of technology and software.

## WORK EXPERIENCE

**Sponsorship Outreach, Schulich Space Rover Team**

January 2023 – April 2023 | **Calgary, Canada**

- Identified potential sponsors, crafted proposals, and negotiated agreements to establish partnerships.

**Team Lead Security Officer, GardaWorld**

May 2022 - Present | **Calgary, Canada**

- Led a team of 4 security officers, maintained daily logs, and collaborated with emergency services during crisis situations.

## LEADERSHIP EXPERIENCE

**Orientation Leader, University of Calgary**

September 2022 | **Calgary, Canada**

- Led and coordinated orientation for 30 first-year students, aiding in their transition to the university.