# SADMAN SAMI

## Education

# University of Alberta

**Expected Graduation 2026** 

Bachelor of Science with Honors in Computing Science

• Grade - 3.7/4.0 | Dean's Honour Roll all semester.

Edmonton, Alberta

### Relevant Coursework

- Data Structures
- Software Methodology
- Algorithms Analysis
- Database Management
- Artificial Intelligence
- Machine Learning
- Systems Programming
- Computer Architecture

# Experience

#### Save the Children International

June 2024 - August 2024

Dhaka, Bangladesh

Software Engineer Intern

- Collaborated with a team of 5 developers to implement dynamic web applications, utilizing EJS templates and MongoDB, achieving 15% faster project completion than expected.
- Designed and enhanced **RESTful APIs** using **Node.js** and **Express.js**, enabling secure creation, retrieval, and management of over **1,000** monthly requests and **150+** user accounts, with a focus on scalability and reliability.
- Tested and debugged APIs using Postman, identifying and resolving 90% of functional bugs before deployment, ensuring reliable performance.
- Integrated secure user authentication using JSON Web Tokens (JWT) and OAuth 2.0, ensuring robust access control and reducing authentication-related errors by 20%.

### **Projects**

# Event Management App | Java, Android Studio, Firebase

September 2024 - December 2024(Approx.)

- Developing an event management app in **Android Studio**, allowing users to sign up for events via a lottery-based waiting list system, ensuring fairness and accessibility through **Firebase** integration.
- Configured advanced features such as **QR code** scanning, multi-user interaction, **image uploads**, and optional geolocation, enhancing functionality and delivering a seamless user experience.
- Utilized **Firebase** for backend integration, enabling real-time database updates and **authentication**, supporting thousands of user interactions with reliable data storage and processing.

# Emotion Analysis Web App | Python, ReactJS, NodeJS, Tensorflow

September 2024

- Programmed a full-stack Emotion Analysis App using deep learning model, ReactJS, and NodeJS to classify text into six emotions (sadness, joy, love, anger, fear, and surprise) with real-time predictions via a web interface.
- Achieved over 93% accuracy on a dataset of 500,000+ labeled text samples, utilizing TensorFlow and an LSTM-based architecture for sequential pattern recognition.
- Optimized data preprocessing pipeline, removing noise, punctuation, and stopwords using nltk library, and configured one-hot encoding to enhance model performance on multi-class emotion classification.

### NHL Match Predictor | ReactJS, Flask, Selenium, Python

July 2024

- Architected an NHL Match Predictor using a Random Forest Classifier trained on two seasons of hockey data, achieving 71.23% accuracy and evaluated with metrics like precision (64.47%), recall (69.03%), and AUC-ROC (73.89%).
- Structured a data collection pipeline by scraping thousands of historical and upcoming match records from the NHL official website using **selenium**, handling missing data, feature scaling, and encoding to ensure a robust dataset for analysis.
- Coded a responsive web application with **ReactJS** frontend and a Python based **Flask** backend, integrating **real-time** data flow to display predictions with a visually engaging and user-friendly interface.

# **Technical Skills**

Languages: Python, Java, C, C++, HTML/CSS, JavaScript, SQL

Developer Tools: Firebase, Postman, Android Studio, Jupyter Notebook

Technologies/Frameworks: ReactJS, NodeJS, GitHub, PostgreSQL, MySQL, Flask

#### Extracurricular

#### Development Initiative Support for Rural Poor

May 2021 - July 2021

Volunteer

Dhaka, Bangladesh

- Participated in vaccine campaign activities in rural areas and Provided information to community members regarding vaccine efficacy, side effects, and the importance of immunization.
- Engaged with COVID 19 vaccination program to facilitate the online registration for the people in vaccination program.
- Supported various program activities, assisting with administrative tasks.