# Sadaf Tasnim

### Master of Computer Application [Osmania University]

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Sadaf

## **EDUCATION**

### Deccan College of Engineering & Technology, **Hyderabad**

### **Master of Computer Application**

Mov. 2022 - Oct. 2024

♦ Hyderabad, India

- CGPA-8.05

## PROJECT 1

#### ADT (Abstract Data Type) Implementation in C

Hyderabad

- Roles & Responsibility: Designed, implemented, and tested the ADT library for diverse data structures.
- Description: Developed a reusable ADT library in C to extend standard capabilities by implementing.
  - Linked List: Supports integer, float, and string data types.
  - Stack: LIFO (Last In, First Out) data structure for data management.
  - Queue: FIFO (First In, First Out) data structure for dynamic data handling.
  - Vector: Dynamically resizable array with efficient memory management.
- Tools: C Programming Language, GCC Compiler

#### **Environment**

Platform : Windows 11

## **PROJECT 2**

### **Prediction of Used Car Prices Using Machine Learning Algorithm**

math Apr 2024 – July 2024

Hyderabad

- Roles & Responsibility: Data collection, cleaning, and preprocessing of used car data. Implementation of machine learning models (Random Forest, Linear Regression) to predict car prices. Development and deployment of a web application using Flask for car price prediction.
- Description: This project involves predicting the prices of used cars based on various factors such as brand, year of registration, fuel type, gearbox, power, and mileage. The data is cleaned and processed, followed by training machine learning models.
- Tools: Python 3.7, Jupyter Notebook/VS Code, Scikit-learn, Pandas, NumPy, Joblib, Flask

### **SKILLS**

C, C++, Java

Visual Studio 2022

Python, AWS

**Operating System** 

**Data Structures** 

**Object Oriented Design** 

MySQL

Valgrind, gdb, gprof

Linux/Windows

## **PROJECT 3**

### **Multi-Factor Authentication (MFA)** Implementation in C++

Aug 2024 – Oct 2024

Hyderabad

- Roles & Responsibility: Designed and developed the complete solution.
- Description: Developed a robust MFA system using TOTP (Time-Based One-Time Password) and QR code generation. The project included Base32 secret key generation, HMAC-based OTP calculation, and secure provisioning through QR codes.
- Tools: C++, Visual Studio 2022, OpenSSL (for OTP generation), libqrencode (for QR code generation)

#### **Environment**

Platform: Windows 11

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