

Vishal Singhanian

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EDUCATION

MANIPAL UNIVERSITY JAIPUR

Faculty of Engineering

BTECH IN COMPUTER AND

COMMUNICATION ENGINEERING

MINOR IN DATA SCIENCE

Aug 2024 | Jaipur, Rajasthan

Cum. GPA: 8.91 / 10.0 (till 5th Sem)

LINKS

Github/SinghanianV

LinkedIn/singhanian-v

Kaggle/bigvish

CodeChef/big_v

Codeforces/BigV_

Leetcode/bigV_

COURSEWORK

UNDERGRADUATE

Design and Analysis of Algorithms

Data Structures and Algorithms

Object Oriented Programming

Operating Systems

Database Systems

Computer Networks

Wireless Communications*

Computer Architecture

Machine Learning*

Automata Theory & Compiler Design*

Probability & Statistics

Discrete Mathematics

[*to be completed by May 2023]

OPENCOURSEWARE

(Google Drive link to Certifications)

SKILLS

PROGRAMMING

Comfortable:

C • C++ • Python • Java

Familiar:

MATLAB • SQL • Shell • Git

• HTML, CSS • JavaScript

INTERESTS

Algorithms • Math • Economics •

Competitive Programming

PROJECTS

STOCK EXCHANGE | APIs, WEBAPP, DATABASE

Flask | Python | SQLite | HTML, CSS | JavaScript

- A user needs to register by entering a username and a password. The **Database** stores a **hash of the user's password** corresponding to their username.
- Require that a user input a **stock's symbol** (after logging in to their portfolio) whose Quote is displayed by **querying IEX** for stocks' prices.
- For buying and selling, a user inputs a stock's symbol and the number of shares then proceeds whose **transaction** is subsequently **updated** in the **database** and their book.

PASSWORD MANAGER | CRYPTOGRAPHY, SYMMETRIC-KEY ALGO

Fernet | Python

- A CLI Password Manager in Python which uses the **Fernet** module in **Cryptography** (package) to encrypt passwords using **Symmetric-Key** encryption.
- The user can **save** and **retrieve** passwords locally using their **master password**.

WORDLE | GAME DEV

Python

- An implementation of the famous game **Wordle** (originally developed by Josh Wardle) in Python than can be played via the terminal.
- Each guess must be a **valid five-letter word**. The color of the tiles will change to show how close your guess was to the word.
- Used **dataset** of 6000 five-letter words.

HOUSE PRICE PREDICTION | DATA SCIENCE, MACHINE LEARNING

NumPy | Pandas | Python

- With seventy-nine explanatory variables describing (almost) every aspect of residential homes in Ames, Iowa, used **NumPy** and **Pandas** to extract useful data which affects house prices.
- Applied advanced regression techniques like **Random Forest** and **Gradient Boosting** to predict the prices (ranked under 800 out of 21k competitors on Kaggle).

PLANET SIMULATION | GAME DEV

Pygame | Python

- Used **Pygame** to simulate the **orbits of planets** around the sun using real **astronomical values** like distance, mass and velocity calculated using the **gravitational equation** to get an accurate elliptical orbit.

ACHIEVEMENTS

2 star with highest **rating of 1558** on CodeChef

Rank of 946 in a codeathon organized by IIT BBS

Global Rank of 293 in Codechef Starters 75

Global Rank of 483 in Codechef Starters 71

Competitions Contributor on Kaggle

Qualified Round 1 of Semi Code (an Institute level Codeathon) by ACM Chapters

Open Source contribution recognized in **Hacktoberfest 2021**