SAHIL PATEL

Computer Science Engineering Undergraduate at IIIT Hyderabad

sahil.patel@students.iiit.ac.in | +91 81405 47350 | Github | Linkedin

EXPERIENCE

Web App Developer
Venture Vault

📅 January 2024 – April 2024   📍 Hyderabad

- **Led a team of 12 developers** to create a fully functional, responsive logistics website enabling Angel Investors, Venture Capitalists, Equity Firms, Incubators and Startups to securely share files through controlled access.
- Directed the integration of software to enhance website functionality and user experience.

PROJECTS

Network File System

- Designed a Network File System (NFS) project, enabling seamless file access and management across remote servers using **TCP/IP** protocols through **network programming**. Implemented efficient file sharing and centralized data management, enhancing collaboration in multi-user environments.
- Ensured reliability and performance through optimized network protocols, server configurations, data redundancy using 2 replicated servers, failure detection and **asynchronous duplication**.

Health Data Visualisation (Website Link)

- Developed a system enabling comprehensive visualizations of the data of a user's daily activities. Our Dashboard helps the user to keep track of their health and fitness goals.

Linux Shell

- Created an interactive, bash-like shell in C using Linux system calls. Covering over 15 features such as **I/O redirection, piping, signal handling** and **command history storage** and more.

Paint app

- Implemented a Python application using Tkinter with 6 features: drawing tools (lines and rectangles), shape selection and editing, grouping/ungrouping, file operations (TXT/XML), copy-paste functionality, and an interactive UI with custom shape functions.

PUBG DB Management CLI

- Designed a Python3 CLI tool using **MySQL** for seamless PUBG database management, executing over 27 SQL queries with Redis caching, providing more than 5x improvement in execution time.

Concurrency Simulation

- **Cafe Simulation**: Built a **multi-threaded** simulation for a cafe, managing coffee types, barista resources and customer wait times using **semaphores** and **mutex locks**. Ensured efficient order fulfillment with real-time color-coded outputs for interactions.
- **Ice Cream Parlor Simulation**: Engineered a complex, multi-threaded ice cream parlor simulation, orchestrating machine workflows and resource allocation.

EDUCATION

B.Tech in CSE
IIIT Hyderabad

📅 Oct 2022 – Ongoing   CGPA: 9.12

Class XII

📅 July 2022   95.83%ile

Class X

📅 April 2020   99.90%ile

ACHIEVEMENTS

- **Ranked 1 out of 300+ students** for Spring 2024 semester scored 9.82/10
- Awarded **Dean's List** at IIIT-Hyderabad for being among the top performers.
- Peak Rating **2034(5 Star)** on CodeChef(Globally Top 1000)
- Global Rank **11**, **132** and **105** in Codechef Starter 116(Div 3), 126(Div 1) and 117(Div 2)
- Peak Rating **1609(Expert)** on Codeforces
- **JEE Mains:** Secured AIR 1061 from more than 1 million candidates(Among top 0.1%)
- **JEE Advanced:** Secured AIR 1657 from more than 250K candidates (Among top 1%)

SKILLS

C/C++   Python   Javascript
React JS   Node JS   Express JS
MongoDB   SQL   Linux   D3JS
HTML   CSS   Bash   Git

COURSEWORK

- Computer Programming
- Data Structures and Algorithms
- Algorithm Analysis and Design (**Course topper**)
- Operating Systems and Networks
- Design and Analysis of Software Systems
- Machine, Data and Learning
- Probability and Statistics
- Data Visualisation
- Data and Application
- Performance Modelling of Computer Systems