Sayan Chatterjee

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EXPERIENCE

Sales Manager

One World (Freelance)

Apr 2023 - Apr 2023

• Managed a small venture for three days, overseeing sales operations and public speaking.

Web Developer

Janvee Collection (Part-time)

Feb 2022 - May 2022

Developed and managed the company's website remotely.

Projects

1 Hairdo Manacle -Barber Appointment Booking App:

Hairdo Manacle is a comprehensive barber appointment booking application developed using Flutter, ensuring compatibility across multiple platforms including iOS, Android, and web. The app was designed to streamline the appointment scheduling process for barbers and clients alike, providing a seamless user experience with intuitive navigation and robust functionality. Users can easily browse available barbers, view their profiles, check availability, and book appointments directly through the app.

Technology: Flutter, NodeJS, Firebase

2 Home Automation IOT System:

The Home Automation IoT System is an advanced solution designed to control and monitor electrical hardware throughout a home using ESP8266 and ESP32 controllers. The system leverages a variety of sensors to automate and optimize household operations, enhancing convenience and energy efficiency. Smart lights, for instance, can be controlled remotely, while sensors monitor water levels in tanks to prevent overflows. Temperature sensors maintain ambient room conditions by adjusting HVAC systems. Additionally, the system tracks electrical consumption for each node, providing valuable insights into energy usage and enabling homeowners to make informed decisions about their consumption patterns. This integration of sensors and controllers creates a cohesive and intelligent home environment, ensuring comfort, efficiency, and safety.

Technology: Arduino, HTML & CSS, IOT, ESP32, EPS8266

3. Secure Messaging Server

Developed a secure messaging server in Rust, leveraging MySQL for data storage and management. The server facilitates secure communication channels, implementing end-to-end encryption for messages. Users can register, log in securely, and exchange messages while ensuring data privacy and integrity. The project showcases proficiency in Rust programming, MySQL database integration, and secure communication protocols.. This integration of sensors and controllers creates a cohesive and intelligent home environment, ensuring comfort, efficiency, and safety.

Technology: Cargo, MySQL Client for Rust

4. WinterTraining

In the **WinterTraining** project, I am actively engaged in enhancing my problem-solving skills and mastering data structures. This hands-on experience involves tackling challenging problems from various platforms, including LeetCode, GeeksforGeeks, Coding360, and InterviewBit. By consistently solving these problems, I am honing my logical thinking abilities and deepening my understanding of data structures.

Technology: C++, JAVA, Python, MYSQL, SQL, Rust, HTML, CSS, React, NodeJs

5. HomeServer

Implemented a comprehensive home server solution on Ubuntu, integrating Plex for media streaming, Pi-hole for network-wide ad blocking, SMB shares for file sharing, and Immich for photo and video management. Utilized Tailscale VPN for secure remote access, ensuring privacy and accessibility. This setup leverages Docker, Apache CloudStack, KVM, MariaDB, and various other tools to create a robust, user-friendly environment for seamless media consumption and network management, enhancing both functionality and security for all connected devices.

Technology: Ubuntu, plex, Pi-hole, SMB shares, Immich, Tailscale VPN, Docker, Apache CloudStack, MariaDB

5. N-Queens Visualizer

GitHub Pages: https://cayanide.github.io/N-Queens_Visualizer/

Created an N-Queens puzzle visualizer that employs a recursive backtracking algorithm to solve the problem of placing N queens on an N×N chessboard without conflicts. The project features an intuitive interface that allows users to select the board size and view the algorithm's progress in real-time.

Technology: HTML, CSS, JavaScript, GitHub Pages

Licenses & Certifications

- Application Development using Microservices and Serverless (IBM): Jul 2024
- Data Structures and Algorithms Self Paced (GFG): Jul 2024
- Cloud Virtualization, Containers and APIs (Duke University): Jul 2024
- Spring Cloud Overview (LearnQuest): Jul 2024
- Deploy Microservices using Spring Cloud Framework (Coursera Project Network): Jun 2024
- Introduction to Containers w/ Docker, Kubernetes & OpenShift (IBM): Jun 2024
- The Complete Theory of Computation (Udemy): Nov 2023
- Machine learning, Indian Institute of Technology, Bombay : Mar 2023
- Foundations: Data, Data, Everywhere (Coursera): Oct 2021
- CORE JAVA (Internshala): Aug 2021

Skills

Programming Languages:

- C
- C++
- Swift UI
- React
- Flutter
- Java
- Python

Web Technologies:

- ReactJS
- Bootstrap
- HTML5
- CSS
- jQuery
- JavaScript

Cloud & DevOps:

- Google Cloud Platform
- IBM Cloud
- GitLab
- AWS
- Azure
- Docker
- Kubernetes

Data Management:

- Firebase
- MySQL
- MS Access
- MongoDB
- PostgreSQL
- SQLite

Back-End Technologies:

- NodeJS
- Express.js
- Django
- Spring Boot

Platforms:

- macOS
- Windows
- Linux
- Docker
- iOS
- Android
- Unix
- FreeBSD

Development Tools:

- Git
- Webpack
- Docker
- Kubernetes

APIs and Protocols:

- REST
- GraphQL
- WebSocket
- OAuth

Education

1. Lovely Professional University

Bachelor of Technology - BTech, Computer Science May 2025

2.Lovely Professional University

Diploma of Education, Computer Science 2022

8.6 CGPA