Harsh Raj

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https://leetcode.com/u/HarshxRaze/   https://github.com/harshxraze

Education

Siddaganga Institute Of Technology	**September 2023 - Present**
Bachelor of Engineering in Computer Science and Engineering(CGPA: 9.33)	*Tumkur, Karnataka*
Senior Secondary, CBSE	**June 2022**
Percentage: 88.8%	*Patna, Bihar*
Secondary, CBSE	**June 2020**
Percentage: 96.7%	*Patna, Bihar*

Technical Skills

Systems And Low-Level Skills:C, C++, Data Structures And Algorithms, Compiler Design, System Design
CS Fundamentals:Database Management System, OOPs, Operating Systems
Web Development: HTML, CSS, Javascript
Frameworks/Libraries: Bootstrap, Tailwind CSS, Node.js, React.js
Database: MongoDB , MySQL
Developer Tools: Visual Studio Code, Git, Github, Postman,Docker
Soft skills: Event Management, Communication

Projects

CPU Scheduling And Process Simulator
- Implemented a custom simulator for OS scheduling algorithms (Round Robin, FCFS, SJF) using C++.
- Analyzed context switching, turnaround time, and CPU utilization.
- Tech stack used : **C++**

Crime Prediction And Analysis
- Developed a scalable ML-driven crime prediction system by integrating a Flask-based Python model with a Node.js backend, enabling real-time crime forecasting through efficient API communication and clean data flow
- Implemented secure JWT authentication, modular service structure, and optimized prediction handling while ensuring smooth interaction between the ML service, backend, and React-based user interface.
- Tech stack used : **React, Vite, TailwindCSS, Node.js, Express, MongoDB, JWT, Python (pandas, scikit-learn), Flask, Axios.**

Group Study Planner – Real-Time Collaborative Learning Platform
- Designed and developed a real-time collaborative study platform enabling group-based learning with live chat, shared notes, file attachments, and presence tracking, improving peer engagement and study coordination by 40%.
- Implemented WebSocket-driven real-time communication (Socket.IO) for instant messaging, online/offline presence, and dynamic study status updates, reducing communication latency and increasing active participation by 30%.
- Containerized the full MERN application using Docker, ensuring consistent development and deployment environments and reducing setup and onboarding time.
- Tech stack used : **React.js, Node.js, Express.js, MongoDB, Socket.IO, JWT Authentication, REST APIs, Multer, Tailwind CSS, Docker**

Achievements

- ∗ Secured 1st position at robotics workshop.
- ∗ Completed 200+ questions on Leetcode.
- ∗ Completed C++ and DBMS course on Codechef.

Position Of Responsibility

Avalanche - Feel Accelerated.	**May 2024 - Present**
	Tumkur,Karnataka

Member

- ∗ It is an event management organization which conducts cultural events as well as technical workshops.
- ∗ GOONJ INDIA: Goonj is a non profit organization working to bring equity and dignity between cities and villages using under-utilised urban material.It undertakes disaster relief, humanitarian aid and community development in parts of 23 states across India. It focuses on clothing as a basic but unaddressed need.