Soumen Kumar

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Education

Indian Institute of Technology, Jodhpur

BTech in Computer Science and Electrical Engineering CGPA - 9.01(Till 6th Semester)

Oct. 2022 – May 2026 Jodhpur, Rajasthan

Experience

InfoEdge (naukri.com)

 $May 2025-July\ 2025$

Data Engineer Intern

Noida, India

- Worked with the **Content Recommendation Team** for the **Minis** section of the Naukri app (web and mobile) to revamp the recommendation system using **Bayesian statistics** and **ranking algorithms**, targeting a 20–30% increase in personalization efficiency.
- Created an interactive analytics dashboard consuming user interaction data from DataLake and Kafka, providing real-time insights and comparative metrics between the legacy Minis feed and the Unified feed (beta-tested by 5% of total userbase).

CybraneX December 2024 – May 2025

Quantum Developer Intern

Remote

- Engineered quantum circuits for hardware optimization using Qiskit within the IBM Quantum Environment, simulating multiple quantum scenarios to improve gate fidelity and reduce execution time by up to 15%.
- Implemented Quantum Machine Learning (QML) workflows using CUDA-Q, boosting simulation performance and applying quantum optimization to real-world combinatorial problems like job scheduling and logistics.

Projects

Cancer Diagnostic App $\Omega \mid Project \ under \ (IIT'J-AIIMS'J)$

October 2024 - January 2025

- Created a mobile diagnostic tool for NSCLC patients using Kotlin and XML, integrating NCCN guidelines for real-time, personalized cancer diagnosis and treatment planning.
- Integrated Firebase Authentication, Firestore DB, and Firebase Storage to handle sensitive medical data securely, with a scalable architecture supporting future expansion to 5+ cancer types.

MedSync - Pharmacy Management Platform O | Course Project

September 2024 – November 2024

- Built a full-stack system linking 500+ users to IITJ PHC Pharmacy for live medicine browsing, order tracking, and real-time notifications using **React**, **Firebase**, and **Google Cloud**.
- Launched a feature-rich admin panel with stock alerts, UPI payment support, and user analytics, improving operational turnaround time by 30% and enabling seamless communication with customers.

People Entry/Exit Detector O | Self Project

June 2024 – August 2024

- Designed a vision-based entry/exit monitoring system for commercial spaces using **OpenCV**, **MobileNetSSD**, and **CNN**, achieving 95% accuracy and processing 500+ people/hour.
- Improved processing speed by 25% through multithreading, ensuring reliable real-time detection in environments with dense footfall such as hostel mess.

Technical Skills

Languages: C/C++, Python, Shell Scripting, R, HTML/CSS, JavaScript, SQL, Kotlin, XML

Developer Tools:MATLAB, Firebase, Android Studio, WinAPI, PostgreSQL, Oracle DB, Datalake. Elastic Search, Kafka Technologies/Frameworks: Linux, Git, Google Cloud, React. js, SpringBoot*, Scikit-Learn, OpenCV, Pandas

Relevant Coursework

- Data Structures
- Machine Learning
- Algorithms Analysis
- Database Management
- CyberSecurity
- Probability Statistics
- Operating Systems
- Cloud Computing
- Cryptography
- Computer Networks
- Intro to CS and OOPS
- Engineering Maths(I/II)

Achievements

- Department Rank 3 in B.Tech CS+EE
- Got 3rd Prize(Project Demonstration) in Industry Day-2024@IITJ.
- Part of IITJ Team in ISRO-URC 24
- Expert@CodeForces(Rating-1862)

Positions of Responsibility

- Development Head @ Akshar IITJ
- Secretary @ ES Board of Departmental Societies
- Team Captain@ Quiz Society IITJ