# Sachin Kumar

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#### **EDUCATION**

## **Chandigarh University**

7.75 CGPA

B.E - CSE 2021 - 2025

#### **TECHNICAL SKILLS**

Database Platform: MySQL, Firebase Firestore, MongoDB, PostgreSQL

**Tech Stack:** C++, Python ,JAVA, MERN, SocketIO, WebSocket **Core Concepts:** Operating Systems, Computer Networks, DBMS

### **EXPERIENCE**

## **Backend Developer Intern**

CAC, Chandigarh, India

Nov 23 - Jan 24

- Solved inefficiencies in event coordination by developing a Node.js backend, enabling seamless access and registration for over 10,000 students.
- Enhanced **real-time communication** via RESTful APIs, ensuring timely event updates for students and increasing participant tracking efficiency by 30%.
- Built ARIMA-based analytics tool for precise tracking of participants, informing strategic resource allocation decisions.

#### **PROJECTS**

# **Real-Time Collaborative Coding Platform**

**Github** 

MERN Stack+ AI

- Architected a scalable, platform that supports live code execution and simultaneous editing by over 10,000 active users, ensuring <50ms latency across distributed teams globally.
- Developed an innovative **conflict-resolution algorithm** for real-time code synchronization, minimizing merge conflicts by 80% in high-concurrency environments.
- Implemented AI-powered language detection and intelligent syntax highlighting to automatically optimize the coding environment, improving developer accuracy and reducing error rates by 30%.

EduConnect Github

**MERN Stack** 

- Built EduConnect, an online education platform capable of handling over **5,000 concurrent users**, enabling seamless course hosting for instructors and real-time purchasing of live classes by students.
- Fortified application security with JWT-based user authentication, mitigating XSS by 95%, and preventing NoSQL injection attacks, achieving 100% compliance with security standards.

File Zipper <u>Github</u>

CPP+ Huffman Coding

- Designed and implemented a file compression tool using **Huffman coding**, achieving an average 60-70% reduction in file size and a 30% faster compression time compared to standard tools.
- Engineered a scalable solution capable of efficiently compressing files up to 2GB without performance degradation, demonstrating advanced algorithmic design and optimization skills.

## **API Inventory Management**

**Github** 

Database + Cybersecurity

- Centralized **API security platform** integrated with 500+ APIs, enabling real-time monitoring and reducing security incidents by 30%.
- Automated security checks in CI/CD pipeline decreased API vulnerabilities by 40%, leveraging OWASP ZAP and custom scripts.
- Designed a scalable **Grafana dashboard**, boosting API security visibility by 50% and streamlining issue resolution.

ACHIEVEMENTS

- **5G Vimarsh**: Secured 2<sup>nd</sup> Position in the 5G Vimarsh Hackathon, a nationwide competition held at **IIT Madras**.
- Flipkart Grid 6.0:: Secured a finalist spot, Recognized for delivering innovative tech solutions in a competitive arena.
- Codechef: Clinched global rank 98 among 11,347 participants in CodeChef June Long Two 2022.
- Leetcode: Earned a global rank of 1849 out of 31,928 participants in Biweekly Contest 126