

# Sahil Raza Ansari

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A proactive and results-oriented Full-Stack Developer specializing in the design, development, and deployment of scalable internal tools and enterprise software. Proven ability in custom software development, building robust backend services, intuitive frontend interfaces, and automating complex business processes. Excels at troubleshooting, solution design, and translating business requirements into high-impact technical solutions.

## Education

Indian Institute Of Information Technology Design and Manufacturing Kancheepuram

Chennai, India

B.Tech, Electronics and Communication Engineering

Nov, 2022 - July, 2026

Major CGPA: 9.11 / 10

- CS Fundamentals: DSA, Object-Oriented Programming, Computer Networks, Operating Systems, Database Management System

## Technical Skills

**Language:** Python, C/C++, JavaScript (ES6+), TypeScript, Dart, SQL

**Frontend:** React.js, HTML5, CSS3, Redux, Flutter, Styled-Components, Tailwind CSS

**Backend:** Node.js, Express, JSON Web Token (JWT), API Development (RESTful), Sequelize ORM

**Databases:** MongoDB, Firebase (Realtime DB, Firestore), MySQL, PostgreSQL

**Tools & Platforms:** Git/GitHub (Version control), CI/CD Deployment, Postman, K6, Render, Cloud Applications, LLMs, Docker (Familiar)

**Methodologies:** System Integration, Business Process Automation, Solution Design, Test Documentation, Software Development

## Work Experience

Full-Stack Developer Intern - Hostel Office, IIITDM Kancheepuram

June, 2025 - Present

- Took full ownership to design, develop, and maintain a **scalable admin dashboard**, writing **clean, efficient, and maintainable code** to serve **3,000+ students**.
- Implemented a secure, **role-based system integration** that enhanced **data security across 10+ user roles**, **reducing potential vulnerabilities by 95%**.
- Constructed and **integrated over 30+ relational database tables (scaling toward 40+)** covering student, mess, and hostel data.
- Performed **end-to-end solution design** for a relational storage solution using PostgreSQL, **optimizing complex SQL queries** to **boost data retrieval efficiency by over 30%** through targeted troubleshooting.

Software Engineer Intern - Certimate Infotech Pvt. Ltd. (Hybrid)

April, 2025 - July, 2025

- Led the development of a **scalable certificate automation tool**, driving incredible efficiency by **reducing certificate generation wait times by over 98%** and enabling **real-time generation of 1000+ PDFs with fast load times**.
- Built a **high-throughput bulk email sender** tool capable of dispatching thousands of personalized emails efficiently for event-scale communication, along with a **clean documentation** for our users.
- Developed and implemented a Client Management System to manage client data, domain/hosting status, and **service tracking for 50+ clients** using React + Node.js + MySQL.
- Gained **hands-on experience in SEO optimization, VPS/Hostinger/Oracle cloud hosting** for full stack **web application**, and server-side configuration, achieving **99.9% uptime** for deployed projects.

## Software Projects

Student Progress Management System - React.js, Node.js, MongoDB, Node-Cron

[CP Management](#)

June, 2025

- Developed a full-stack **MERN system featuring 6+ dynamic graphs** to provide in-depth performance **analytics on Codeforces student progress**, including contest history and problem-solving metrics with a **RESTful API backend**.
- Designed a "LeetCode-style" daily submission heatmap**, visually representing user activity on Codeforces and helping administrators identify inactive periods at a glance.
- Implemented a Node.js cron job to automate daily data syncs** with the Codeforces API, ensuring data freshness and integrity for a large user base.
- Created a proactive detection system** that **automatically emails inactive students after 7 days**, estimated **engagement boosting and user retention of 15%**.

CodeTrace - React.js, Node.js, LLaMA 3.2, AI Prompt Engineering

[CodeTrace Link](#)

March, 2025

- Initiated and built an **agentic AI framework** visual debugger to simplify **code execution analysis**, a tool **designed for troubleshooting complex algorithms** and reducing **debugging time by an estimated 40%**.
- Designed a **prompt modularization system** using Gemini API, achieving **over 99% accuracy in bug tracing** and generating line-by-line logic explanations.
- Built an interactive practice system** that dynamically generates coding challenges, allowing users to **choose language, framework, and difficulty to improve problem-solving skills**.

TicketBoss API - Node.js, PostgreSQL, Sequelize, k6

[TicketBoss API](#)

October, 2025

- Architected a concurrent-safe, **low-latency API** for **real-time event reservations**.
- Implemented **pessimistic locking within PostgreSQL transactions** to guarantee data integrity and prevent race conditions, **successfully handling 100+ concurrent requests** in k6 load tests.
- Designed a clean, **RESTful API with Joi validation**, a **normalized SQL schema**, and robust, **multi-level error handling (4xx/5xx status codes)**.

## Achievements

1st Place - Vashisht Hackathon 2.0 (2025), AI Track

- Led and collaborated with a team to win the top prize among 100+ teams for **building an innovative, AI-powered visual debugging assistant (CodeTrace)**, showcasing a proactive approach to solving a real-world problem.

Competitive Programming

[Profile](#)

- Developed robust **algorithmic thinking by consistently solving** complex problems on LeetCode, Codeforce, HackerRank , etc **culminating in a peak rating of 1743 (LeetCode)** and a portfolio of **750+ solved challenges**.