SANJEEV KUMAR

27, Male | +91-9927006187 | sanjeev081097@gmail.com | English, Hindi

Personable and detail-oriented Project Manager and Software Developer with expertise in IIoT applications, automation, and full-stack development. Adept at leading development teams, optimizing industrial solutions, and managing large-scale projects across domains. Passionate about innovation and problem-solving.

Professional Experience		
Senior Software Developer	**IITD-AIA-Foundation for Smart Manufacturing, IIT Delhi, New Delhi**	**Feb 22 – Present**

- Managed web server configurations, domain management, and SSL certificate handling for secure web operations.
- Led a **4-member development team** in the **CMF Booking Management and MES Portal project**.
- Upgraded and managed the **Moodle-based FSM LMS**, handling step-by-step PHP and Moodle upgrades and UI enhancements.
- Designed and developed the company's **CRM application, FSM Employee Management System**, which manages employee attendance using **IIoT-based fingerprint data**
- Developed & integrated **WhatsApp bot** for leave applications.
- Developed multiple **IIoT applications** leveraging **IIoT protocols** such as **OPC UA, MQTT, and Modbus** for seamless industrial automation and connectivity.

Mobile Application Developer	**Letmegrab, Surat, Gujrat**	**Jun 21 – Jan 22**

- Designed and developed company's CRM application, LMG Heroes, which manage employee's attendance based on check in and check out time, and location tracking
- Worked as a developer on company's seller and user applications, Go Seller, and Go Business respectively
- Worked on various technologies and features, namely, API integration, Firebase push notification, Floor local database, Firebase OTP authentication, Google sign-in, Payment integration, One to One chatting

Projects

IITD-AIA-Foundation for Smart Manufacturing

FSM Employee Management System

- Developed an Android application using Flutter with Firebase Firestore as the backend.
- Integrated Google Login and implemented leave management.
- Users can view who is on leave today, aiding event and task assignments.
- Built an **Admin Panel (React-based)** where admins can approve/reject leave requests and download leave data in CSV format.
- **Software Stack: Flutter | Node.js | MySQL | Firebase (Google Login) | Firebase Firestore**

FSM WhatsApp Bot

- Developed using **Twilio and Node.js** for automated communication.
- Allows employees to **apply for leave** via WhatsApp.
- Schedules a **daily message** listing employees on leave today.
- Integrated with an **IoT Fingerprint Device**, sending real-time WhatsApp notifications to the admin when employees punch in.
- Admins can **view punch data** and **download CSV reports** based on selected date ranges.
- **Software Stack: Twilio | Node JS | Redis | Firebase Firestore**

FSM LMS

- Upgraded an existing **Moodle-based Learning Management System** from an old version to the latest version.
- Performed step-by-step PHP and Moodle upgrades on the Apache web server.
- Installed a premium Moodle theme for improved UI/UX.
- Integrated Google Captcha for login and registration security.
- **Software Stack: Moodle | PHP | MySQL**

Lab Autonomy System

- **URL:** Lab Autonomy
- Developed a **control panel** for managing **FSM Lab appliances**. Implemented **role-based access control**, ensuring that **interns can control only fans and lights, while machines remain restricted**. The system also logs all **user activities** for tracking and auditing purposes.
- **Software Stack: Flutter | React JS | Python | OPC UA | Firebase Firestore | Firebase Auth (Email)**

Assembly Stations Dashboard

- **URL:** Assembly Stations Dashboard
- Developed a **real-time monitoring panel** to track the **assembly order process** and visualize progress across **three assembly stations**. Integrated **real-time IP camera video streaming** for live monitoring.
- **Software Stack: React JS | Python | OPC UA | Firebase Firestore | Firebase Auth (Email)**

Multi Process Robotic Cell Dashboard

- **URL:** MPRC Dashboard
- Developed a **real-time monitoring panel** for tracking the **order process and robot movement visualization**. The system communicates via **OPC UA protocol** to fetch robot movement data, which is processed using **Node.js** and sent to a **React-based dashboard** via **WebSockets** for live updates.

• **Software Stack: React JS	Node JS	OPC UA	WebSocket**

IITD-AIA Foundation for Smart Manufacturing Website
• **URL:** [FSM Website](#)
• **Profile Page:** [Sanjeev Kumar](#)
• Maintained and managed the **official website of IITD-AIA Foundation for Smart Manufacturing (FSM)**, ensuring smooth functionality, security updates, and content management. The website is built on **Joomla** and provides information about FSM's initiatives, training programs, consulting services, and research projects.
• **Software Stack: Joomla	PHP	MySQL**

FSM -IIT Delhi Energy Monitoring Platform
• **URL:** [IIT Delhi Network (Internal Access)](#)
• Developed a **real-time energy monitoring system** to track **energy consumption** across IIT Delhi. The system operates within the **IIT Delhi network**, collecting and visualizing data from **various energy sources**.
• Users can download logs for the last 24 hours, which include parameters like voltage (V1, V2, V3), power factor, frequency, current (I1, I2, I3), total power (TkVA, TkVAr, TkW), and energy consumption (kWh).
• Sensor configurations are JSON-based, allowing dynamic updates.
• **Software Stack: React JS	InfluxDB	Telegraf	Modbus	MQTT**

Indian Institute of Technology, Delhi

CMF Booking Management and MES Portal
• Built a **machine booking system** for students using Next.js, MySQL, and Node.js.
• **Managed a 4-member development team** for this project.
• Implemented **multi-user roles**, including Admin, Accountants, Students, Supervisors, Lab Incharges, and Machine Operators.
• Integrated **SMTP-based email and phone SMS** verification.
• Admins manage user registrations, approve/reject bookings, and handle payments.
• Lab incharges verify bookings and assign machine operators for tasks.
• **Software Stack: Next JS	Node JS	SMTP	PostgreSQL**

United Nation World Food Programme Smart Warehouses Management System
• **URL**: [WFP Smart Warehouse](#)
• Developed a **warehouse monitoring system** for tracking Oxygen, CO_2, PH_3, rodent alerts, AQI, door status, and pressure.
• Implemented **real-time alerts** when sensor values exceed thresholds.
• **Monitor View** allows users to view warehouse conditions, download logs, and track trends (max 24 hours).
• **Admin View** enables user management, warehouse/godown/sensor configuration, and setting sensor thresholds.
• **Software Stack: Flutter	MQTT	Telegraf	InfluxDB	Modbus	Push Notifications	PHP	MySQL**

IIT Delhi Open House 2023 & 2024
• Built a **React-based** event management system for **IIT Delhi Open House**.
• Users can register as **Volunteers, Helpdesk, School Teachers, Visitors, and Lab Admins**.
• Integrated **QR-based lab tracking** for school groups.
• Helpdesk members handle user verification.
• T-Shirt distribution module included.
• **Software Stack: React JS	Firebase Firestore	Firebase Auth (Email & Password)**

DD Robocon 2022-2024
• Developed a **React-based** event management system for **DD-Robocon**.
• Integrated **QR code-based registration and verification** for attendees.
• Users register as **Volunteers, Helpdesk, School Teachers, Visitors, and Committee Heads**.
• T-Shirt distribution and **role-based user views** were implemented.
• **Software Stack: React JS	Firebase Firestore	Firebase Auth (Email & Password)**

Personal Projects

Doo
• Designed and developed an application to assist **Cyber Cafés** in **digitally collecting student details, processing payments, and filling forms**.
• Integrated various APIs for fill government forms
• **Software Stack: Flutter**

Swastik Astrology
• Designed and developed an astrology application which provides kundli, prediction, horoscope details based on date and time of birth and place details
• Integrated various APIs for kundli calculations
• Google and Facebook authentication
• **Software Stack: Flutter	Floor Database**

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Education Qualification			
2020	B. Tech (I.T.)	JP Institute of Engineering & Technology, Meerut	7.23 CGPA
2015	XII	SDHT Saraswati Vidya Mandir, Meerut	83.20 %
2013	X	SDHT Saraswati Vidya Mandir, Meerut	85.50 %

Technical (IT) Skills	
Languages	C | C++ | Java | Python | Dart | Kotlin | JavaScript | PHP
Database	MySQL | Oracle | Google Firebase | SQLite | InfluxDB | PostgreSQL
Communication Protocols	OPC-UA | Modbus | MQTT | WebSocket | HTTP
Tools & Frameworks	Visual Studio | Android Studio | Flutter| Grafana | NodeJS | ExpressJS | ReactJS | Git | AdobeXD | Joomla | Moodle | Next JS | Tailwind CSS | Telegraf

Certificates	
Career Institute	• Programming in Java • Project Training in Java • Android Application Development
Coursera	• Programming for Everybody (Getting Started with Python) • Python Data Structures
HackerRank	• Java (Basic)
Udemy	• The Complete Full-Stack Web Development Bootcamp • The Complete Flutter Development Bootcamp with Dart

Other Information	
Skills	Teamwork | Project Management | Logic Building | Problem Solving | Debugging | Innovation
Interests	Listening Music | Gaming | Travelling | Listening Audiobooks