

# HARSH KUMAR SINGH

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Team Lead | MERN Stack | 5+ yrs Experience in Soft Dev

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Immediate Joiner

 [/itsharsh](https://github.com/itsharsh)

Highly skilled **Team Lead** with a strong background in **Node.js & MongoDB**. Proven track record of leading teams to deliver complex projects, achieving a 20% increase in project delivery speed. Experienced at converting monolithic applications to **microservices** architecture, implementing multi-tenancy, and **optimizing** database performance leading to a 30% cost reduction. Experienced in **Agile** methodology and test-driven development.

## SKILLS

|            |                    |           |         |              |
|------------|--------------------|-----------|---------|--------------|
| Javascript | MongoDB            | Git       | Jest    | Redis        |
| NodeJS     | Microservices      | Kafka     | ReactJS | Docker       |
| ExpressJS  | AWS (EC2, S3, SES) | SonarQube | Clickup | Multitenancy |

## WORK EXPERIENCE

### Team Lead - Backend

(Aug'20 – Present)

#### Dhwani RIS, Gurgaon, HR

- Successfully converted the company's **core product mForm** from Monolithic to **Microservices Architecture** for 8 critical modules enhancing scalability and agility. Some include Role-based User Management, **Dynamic Form & Dashboard** builder, Monitoring Reports/Dashboards using **Aggregation Pipelines** etc.
- Developed and designed reusable high-performance dashboard components using **NodeJS** and **ExpressJS**, resulting in a **time-saving of 125+ dev. hours/month**.
- Initiated **Jest test cases** from scratch, establishing a robust testing culture for both the products.
- Developed a **Data Synchronization** tool using **Sequelize ORM** to sync data from **MongoDB to MySQL DB (50+ Lakh data)** from scratch for BI tool integration saving **30-40%** of development effort for custom projects.
- Cost Optimization - **Optimized DB**, leading to significant **cost savings of ₹55-60k** monthly on production servers.
- Implemented **multi-tenancy** seamlessly, expanding product capabilities, and facilitating **data migration**.
- Leveraged **Kafka** for data pipelines, ensuring real-time event logging and streamlined **bulk data processing**.
- Virtualized servers using **Docker** Containers for test/dev environments, and Jenkins continuous integration.
- Accountable for the overall SDLC process**. Implementing **agile methodology** across the entire product team.
- Elevated **code quality** through rigorous **code reviews**, resulting in a notable improvement in **SonarQube** grade.
- Led a team of **~10 engineers** in building core products (mForm & mGrant) with a **success of 25+ clients**.

### Software Engineer

(Jan'19 – Jul'20)

#### Oxygen 2 Innovation, Noida, UP

- Developed **Backend REST APIs** for IoT projects using **NodeJS** and **MongoDB**.
- Developed AdTracker, a tool for tracking 3 types of Advertisements(i.e FCT, Non-FCT, Branding) on live TV.
- Created a Situational Awareness System for real-time object detection integrated with **Army vehicles** to detect and alert them about 18 different suspicious activities which arise in different Riot situations.
- Worked on IoT projects including IECS for **Health Monitoring** and **Position Tracking of soldiers** and Smart Plug for educational purposes.
- Led and managed software-related activities and projects
- Introduced tools like **Git** (Version Control) & **ClickUp** (Project Management) in the organization's workflow.
- Worked on various robotics projects, including ATVs, payload delivery **drones**, and AI-powered smart mirrors.
- Contributed to building a tool to calculate **drone flight time** based on input parameters.

## ACHIEVEMENTS & HONORS

- ★ **Coding Standards Core Team** (Dhwani RIS) (01/2024) - Contributed to coding standards and practices.
- ★ **Team Leadership Award** (05/2023) - Delivered features on time, addressed critical bugs, and led team-building activities.
- ★ **Going Extra Mile Award** (08/2022) - Consistently exceeded daily deliverables and built effective products.
- ★ Demonstrated Robotics project to **Directorate of General of CRPF** (2020)
- ★ Published **Research Paper** in **IC3 Conference 2019** on the topic "**A step towards Home Automation using IoT**"

## EDUCATION

| Degree           | Discipline       | Institute  |
|------------------|------------------|--|
| B. Tech.         | Computer Science | Jaypee Institute of Information Technology, Noida (2019) |
| Senior Secondary | CBSE             | Delhi Public School, Agra (2015)                         |
| High School      | CBSE             | Delhi Public School, Agra (2013)                         |

## HOBBIES

Music, Badminton, Trekking, Sudoku, Chess

## HOBBY PROJECTS

- **Booking Management System:** MERN app to manage bookings for a Banquet Hall
- **Switch Simply:** An integrated home automation system that enables users to operate their appliances via a web app developed using MERN. Used MQTT protocol for the seamless communication for IoT devices.
- **WhatsApp Chat Analyser:** An app that visualizes the number of text messages sent by the user and time spent on WhatsApp.