



Agra

HARSH KUMAR SINGH



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



/its-harsh

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Preferred Work Location: Delhi NCR



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Highly skilled Team Lead with a strong background in Node.js, MongoDB, and React.js. Proven track record of successfully leading teams to deliver complex projects. Adept at converting monolithic applications to microservices architecture, implementing multi-tenancy, and optimizing database performance. Experienced in Agile methodology and test-driven development.

SKILLS

Core Skills: NodeJS, ExpressJS, MongoDB, ReactJS, Javascript

Tools: Git, JEST, AWS, SonarQube

EXPERIENCE

Dhwani RIS:

Team Lead - Backend

(Aug'20 – Present)

- Strategic Leadership - Led a team of ~10 engineers in building mForm, mGrant, with a **success of 25+ clients**.
- Architectural Transformation - Successfully converted the company's **core product mForm** from Monolithic architecture to **Microservices Architecture** for 6 critical modules enhancing scalability and agility. Some include Role-based User Management, **Dynamic Form & Dashboard** builder, Monitoring Reports/Dashboards using **Aggregation Pipelines** etc.
- Implemented **multi-tenancy** seamlessly, expanding product capabilities, and facilitating **data migration**.
- Efficient Data Handling - Leveraged **Kafka** for data pipelines, ensuring real-time event logging and streamlined **bulk data processing**.
- Code Quality Enhancement - Elevated code quality through rigorous **code reviews**, resulting in a notable improvement in **SonarQube** grade from C to A.
- Built complex, high-performance, scalable solutions using Node.js, React, JavaScript, and MongoDB.
- DevOps Excellence - Virtualized servers using Docker Containers for test environments, dev-environments, and Jenkins continuous integration.
- Created an in-house dashboard library with reusable components, resulting in a **time-saving of 125+ dev. hours/month**.
- Testing Culture - Initiating and developing **Jest test cases** for the product from scratch.
- Agile Transformation - **Accountable for the overall SDLC process**. Implementing **agile methodology** across the entire product team.
- Developed a **Data Synchronization** tool from **MongoDB to MySQL (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.

Oxygen 2 Innovation:

Software Engineer

(Jan'19 – Jul'20)

- Introduced tools like **Git** (Version Control) & **ClickUp** (Project Management) in the organization's workflow.
- 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.
- Developed Backend APIs for IoT projects using **NodeJS**.
- 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 parameters.
- Led and managed **robotics**-related activities and projects.

Microcontroller Based Systems & Robotics Hub, IIIT Noida: Head Student Coordinator

(July'17- June'18)

- Delivered lectures on manual robotics, **autonomous** robotics, **wireless** communication, and IoT for college students.
- Managed internal and external affairs of the hub.
- Organized and managed a total of 14 events in annual cultural and technical fests of the college.

ACHIEVEMENTS & HONORS

- **Going Extra Mile Award** (08/2022) - Going extra mile in my daily deliverables and effectively building products for the organisation. Also, helped in team building activities.
- 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**"
- **2nd Prize** in Technocreed'15, and **3rd Prize** in Impressions'16 (LFR), Techfest held at IIIT, Noida.
- **2nd Prize** in Manual Robotics 2015, held at SRM University
- **2nd Prize** in Technovoltz, during Techfest'15, held at IIT, Bombay.
- **1st Prize** in Automation, during Cyber Srishti 2016, Techfest held at IIIT, Noida.
- **2nd Prize** in Robocon, during ESYA'16, Techfest held at IIIT, Delhi.

- **2nd Prize** in LFR, during Endeavour'17, Techfest held at KIET, Ghaziabad.
- **2nd Prize** in Project Exhibition during Cyber Srishti 2019, Techfest held at IIIT, Noida.
- College Ambassador in Techfest'16, a Techfest held at IIT, Bombay.

PERSONAL PROFILE

DOB: 03-10-1997

Languages Known: English, Hindi

Hobbies: Music, Badminton, Sudoku, Working on Challenging Projects

EDUCATION

Degree	Discipline	Institute
B. Tech.	Computer Science	Jaypee Institute of Information Technology
Senior Secondary	CBSE	Delhi Public School
High School	CBSE	Delhi Public School

HOBBY PROJECTS

- **Booking Management System:** MERN app to create/update/delete and manage bookings for a Banquet Hall.
- **Switch Simply:** An integrated home automation system that enables users to operate their appliances via a web app.
- **Event Registration:** Java-based portable app for managing events and registered participants.
- **WhatsApp Chat Analyser:** An app that visualizes the number of text messages sent by the user and time spent on WhatsApp.
- **Self-Balancing Bot:** A bot that balances itself on two wheels using a PID controller, nRF24L01+, MPU6050.
- **Quadcopter:** A quadcopter with a custom-made remote and flight controller using Arduino and MPU6050.
- **Rescue Bot:** A bot that senses and sends live footage from inside a collapsed building to the outside world.
- **Alarobic Clock:** An alarm clock that turns off only when the user does a particular exercise.
- **Wireless Bot:** A bot that can be controlled via the internet, a limited-range remote, or Bluetooth.
- **Head Gesture Controlled Wheelchair:** A wheelchair that can be controlled with head gestures.