
MOKSH DESAI

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Education

Heritage Institute of Technology, Kolkata, West Bengal (2024–Present)
B.Tech in ECE Academic Record: 1st Sem: 9.22 | 2nd Sem: 9.21 | 3rd Sem: 8.98
M. P. Birla Foundation Higher Secondary School, Kolkata, West Bengal (2009–2023)
ISC Class 12 Marks: 90.5%

Technical Skills

- **Languages & Hardware:** Microcontroller Programming | IoT System Design | Embedded Systems | Hardware Integration | C | Java
- **Frameworks & Tools:** Full-stack MERN (MongoDB, Express.js, React, Node.js) | Tailwind CSS
- **Core Concepts:** GPS Module Tracking | Real-time Health Monitoring | Project Management | Team Collaboration | Dynamic Leadership

Projects

[SyncFest \(Event Management SaaS\) | React.js, Node.js, MongoDB, Socket.io, Razorpay](#)

- **Architected a multi-role event platform** with strict Role-Based Access Control (RBAC) for 4 user personas, secured by JWT rotation and cross-site HttpOnly cookies.
- **Integrated the Razorpay API** for secure checkout, optimizing internal server logic and MongoDB validations to **under 180ms** while gracefully managing external network latency.
- **Implemented real-time bidirectional pipelines** via **Socket.io** to synchronize live headcounts and QR check-ins, bypassing callback serialization to achieve a **sub-12ms RTT**.

[ResQ \(IoT Emergency Response System\) | IoT, MERN Stack, C](#)

- Led a 5-person team in a 48-hour hackathon to build an IoT emergency wearable, programming C++ firmware to aggregate SpO2, heart-rate, and GPS telemetry.
- Engineered a crisis-optimized React frontend, achieving a near-perfect 99 Lighthouse Performance score to guarantee sub-second load times on low-bandwidth networks.
- Developed a real-time telemetry backend using Node.js and MongoDB to rapidly ingest, process, and persist live hardware data streams.

[Loopanishad \(Portfolio Website\) | Next.js, Tailwind CSS, Radix UI](#)

- Developed a responsive Next.js web application utilizing custom Radix UI components and global keyframe animations, achieving a perfect 100 Lighthouse score in SEO and Best Practices.

Experience

Team Leader | *Hack Heritage 3.0 & Smart India Hackathon* (Aug 2025 – Oct 2025)

- **Spearheaded a 5-person team through the rapid end-to-end design, embedded fabrication, and MERN-stack development of an IoT prototype.**
- **Orchestrated agile timelines and full-stack debugging to deliver a flawless system demonstration under a strict 48-hour window**