Kumar Harsh

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Summary

Full Stack Developer with **1.5+ years of experience** and strong foundations in **Data Structures and Object-Oriented Programming**. Experienced in building **scalable, production-grade web applications** using **React, Next.js, Node.js, Spring Boot, MongoDB, PostgreSQL and AWS**. Contributed to **high-impact platforms at the Indian Institute of Science (IISc)**.

Skills

- **Programming Languages:** Java, TypeScript, JavaScript, Python, C++, SQL
- **Frontend:** React, Next.js, HTML, CSS, Tailwind CSS
- **Backend:** Spring Boot, Node.js, REST APIs, JWT, OAuth, Microservice Architecture (Concepts)
- **Databases:** MongoDB, Amazon DynamoDB, PostgreSQL
- **Cloud & Infrastructure:** AWS (EC2, S3, CloudWatch, Lambda, IAM), Docker, NGINX, CI/CD, Jenkins
- **AI/ML:** LLM-based Systems (OpenAI APIs, Google Gemini APIs), LangChain, RAG
- **Tools:** Git, GitHub, Postman, VS Code, Cursor

Experience

Indian Institute of Science (IISc), Bengaluru, India   **July 2025 – Present**
Full Stack Developer

- Led **end-to-end development** of an **international conference management system** using **Spring Boot, MongoDB, and React**, automating **registration, abstract submission, and payments** for **500+ participants**, eliminating **90% manual paperwork**.
- Integrated **secure multi-currency payments (INR/USD)** using **Razorpay**, implementing **webhook verification**, **transaction validation**, and **automated email notifications**.
- Built a **role-based admin dashboard** with **real-time Google Sheets synchronization** via **Google Sheets API**, improving **administrative efficiency by 75%**.
- Built a **PWA** for a **4-day academic conference** using **Next.js**, enabling **real-time updates** via **WebSockets (Socket.io)**, and **offline support**, serving **100+ concurrent users** with **sub-second latency**.
- Developed a **geospatial analytics platform** for **CSIRO**, mapping **2,500+ industrial plants across India** using **React, TypeScript, Leaflet, and Supabase**, enabling **district-level bioenergy analysis**.

Intervue.io, Bengaluru, India   **September 2024 – June 2025**
Software Engineer Intern

- Automated **rubric creation** using **OpenAI APIs** in a **Node.js** environment, reducing **manual effort by 75%**.
- Engineered **15+ platform features** using **Next.js, Node.js, and REST APIs**, including **real-time assessment interfaces**, **user dashboards**, and **interview reports**.
- Improved **AI-driven skill matching accuracy** from **65% to 72%** through **text normalization and synonym mapping**.
- Contributed to **Agile development cycles**, including **sprint planning**, **feature delivery**, and **code reviews**.

Projects

RAG-Based Document Chat System — Live Demo   **December 2025**

- Built a **Retrieval-Augmented Generation (RAG) document chat system** using **Next.js**, **LangChain**, and **Pinecone**, enabling users to upload documents and query them conversationally.
- Implemented token-based chunking with overlap and stored **768-dimensional embeddings** to ensure accurate semantic retrieval and context-aware responses.

India Jobs — Job Aggregation Platform — Live Platform   **September 2025 – November 2025**

- Engineered **India Jobs**, a **job aggregation platform** using **Next.js 14, TypeScript, Express.js, and AWS (DynamoDB, S3, EC2)** with **NGINX reverse proxy**, delivering **sub-second API responses** and serving **1,000+ real users**.
- Integrated **AI-based resume analysis** using **LLM APIs** to generate **job-specific match scores** and identify **missing skills** against each job description, enabling more contextual job recommendations.

Education

Chandigarh University   **September 2020 - May 2024**
B.E. in Computer Science and Engineering

Achievements

– Led Registration Desk operations at the **STIS-V International Conference**, coordinating volunteers, managing attendee registrations, handling on-site coordination, and resolving real-time issues.
– Secured **3rd** rank in weekly coding competition on GeekForGeeks.
– Secured **1st** rank in the Igebra AI Hackathon.
– Organized and led **5+** events in college as an Event Coordinator.
– **Guinness World Record Participant** – Largest Human waving flag formation, Chandigarh University, Aug 2022

Certifications

• React (Infowiz)   • AWS Architecting (AWS)   • Software Testing (NPTEL)   • Generative AI (Google Cloud)