

RAHUL PRATAP SINGH

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Technical Skills

- **Languages & Backend:** C++, JavaScript, Node.js, Express.js, MongoDB, Redis, REST APIs, WebSockets, JWT
- **Frontend & Tools:** React.js, Tailwind CSS, HTML/CSS, AWS (EC2), Git, GitHub, Postman, Vercel, Render
- **Core CS:** Data Structures & Algorithms, OOP, DBMS, System Design Fundamentals

Experience

Freelance Software Engineer

Remote

Full Stack Development

Nov 2025 – Feb 2026

- Extended marketplace backend workflows to support role-based job posting, hiring flows, and user interactions.
- Modeled structured data schemas for job requests, vendor services, and lead pipelines.
- Implemented role-aware access control and messaging restrictions for secure platform interactions.

Salesqueen Software Solutions

Remote

Software Engineer Intern

July 2024 - October 2024

- Built responsive React.js interfaces integrated with Node.js/Express backends to ensure seamless data flow
- Collaborated on API design and state management to optimize communication between frontend and MongoDB.
- Engineered client-side authentication and protected routing using JWT for secure session management.

Projects

Pairverse – Developer Collaboration Platform · Live Demo

2025

Tech Stack: Node.js, Express, MongoDB, Redis, WebSockets, Cloudinary

- Architected a secure backend API implementing **Rate Limiting** and **Helmet.js** to prevent standard web attacks.
- Designed a matching algorithm using MongoDB Aggregations to connect developers based on skill intersection.
- Implemented real-time chat with **Socket.io** and reduced DB reads by 40% using **Redis** caching.
- Optimized media storage using **Multer** and **Cloudinary** with auto-compression to reduce bandwidth usage and improve load times.

AgriLink – Farmer and Trader Marketplace · Live Demo

2025

Tech Stack: React.js, Node.js, Express.js, MongoDB, Socket.io, Cloudinary, JWT

- Engineered a RESTful marketplace backend supporting dual-role (Farmer/Trader) authentication and real-time inventory synchronization
- Implemented proximity-based search using coordinates to filter listings, optimizing query performance for location-aware discovery
- Integrated Socket.io with a persistent message store to facilitate live negotiations while maintaining data consistency.
- Architected a secure session layer using JWT (HTTP-only cookies) and Role-Based Access Control (RBAC) to enforce strict data isolation.

Sarkari Scheme Organiser – Scheme Discovery · Live Demo

2024

Tech Stack: React.js, Tailwind CSS, Vercel

- Engineered a React-based filtering engine to search 500+ government schemes by category and eligibility.

Education

Shri Mata Vaishno Devi University

Katra, India

B.Tech in Computer Science and Engineering · CGPA: 7.5/10.0

2021 - 2025

Achievements

- **Campus Selection:** Selected as Software Engineer at **Tech Mahindra** (2025) via campus placement.
- **LeetCode:** 1636 Rating (Top 18%), Solved 550+ Data Structures & Algorithms problems.