

HARISH RANA

Skilled MERN Stack & Blockchain Developer with expertise in Node.js, Express.js, React.js, MongoDB, SQL, REST APIs, JWT, Redis caching, and responsive UI with Redux, focused on clean code and performance.

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WORK EXPERIENCE

Antier Solutions Pvt. Limited

MERN Stack & Blockchain Developer

Jan 2024 - Present

- Designed scalable cross-chain transaction systems using **Node.js**, **BullMQ**, and **TokenBucket algorithm**, boosting performance and efficiency.
- Built real-time dashboards using **React.js** and **Redis caching**, integrating **CMC API** for blockchain performance insights and data-driven decision-making.
- Ensured **JWT** user ID matches DB and transaction IDs, added **Ethers.js** signature verification during wallet creation, and addressed **CertiK** audit points. Also ran **RabbitMQ** through **Docker** and configured the environment in **Zookeeper**.
- Conducted **code reviews** for **Miracle Wallet**, optimizing time and space complexity, and significantly reducing the **API execution time by 20%**.
- Managed **RabbitMQ** and **Zookeeper** servers through **Docker** for streamlined project execution and scalability.
- Deployed the project on **AWS Lambda**, ensuring scalability and seamless performance under varying workloads.

EDUCATION

Chandigarh Group of Colleges, Jhanjeri (Mohali, India)

Bachelor Of Technology (Computer Science) - 6.96

June 2016 - June 2020

CIVIL SERVICES PREPARATION

Full-time preparation | 2020–2023

Developed strong analytical, time management, and self-discipline skills.

PROJECTS

Note Wallet

2024 - 2024

- Developed a highly **secure authentication system**, implementing **JWT** and **refresh tokens** to ensure session persistence.
- Built a **Contract Factory**, empowering admins with **advanced role-based access control** for approving sub-admins and managing token creation.
- Engineered a **profit-driven Buy/Sell Mechanism**, integrating **automated profit-sharing models** to optimize **crypto trading strategies**.
- Implemented **Role-Based Access Control (RBAC)** to enforce **secure and efficient permission management** across different user roles.
- Built using **TypeScript**, **NestJS**, **PostgreSQL**, **Redis**, **RabbitMQ**, **Twilio**, **SendGrid**, **Nodemailer**, **JWT**, and **Refresh Token** to deliver scalable, secure, and real-time backend services

Plus Wallet

2024 - 2025

- Designed and implemented a **feature-rich admin panel**, streamlining financial transactions, NFT marketplace, blockchain data visualization, and referral programs.
- Developed real-time dashboard analytics and dynamic modules like **Transaction Data** and **NFT Transactions** in **React.js**, with **time-based filters**, pagination, and seamless API integration.
- Created a **multi-chain portfolio tool** by scraping data from 13+ sources like **Etherscan** and **BscScan**, and optimized large-scale wallet fetching (50,000+) using **BullMQ** and **Token Bucket Algorithm** for high-performance data handling.
- Integrated **AppsFlyer** in backend to capture user interactions and app installs, enhancing data-driven decisions.
- Implemented **Role-Based Access Control (RBAC)** across backend and frontend — Admins had full module access, while Sub-admins had Read/ReadWrite access as per permissions.
- Developed an automated **blockchain health monitoring system** using **Cron Jobs** to fetch latest blocks from **testnet** and **mainnet RPCs**, compare block differences, and update real-time health status with **Redis caching** and **CMC API**.
- Built using **TypeScript**, **Node.js**, **NestJS**, **PostgreSQL**, **MySQL**, **Redis**, **BullMQ**, **RabbitMQ**, **AppsFlyer**, **JWT**, **Refresh Token**, **SendGrid**, **Twilio**, and **Cron Jobs** for robust, scalable, and secure architecture.

Miracle Wallet

2025 - 2025

- Strengthened app security by resolving **CertiK audit points**, including strict validation to ensure **JWT user ID** matches the database before allowing address book or notification updates.
- Implemented a secure **App Lock mechanism** with increasing wait intervals (30s, 1m, 1h) after 3 failed PIN attempts to prevent brute-force access.
- Implemented wallet creation validation by verifying **user signature** using **Ethers.js**, ensuring only authorized users can create or restore wallets if one already exists.
- Migrated blockchain interaction logic from **Web3.js** to **Ethers.js** for **Ethereum** and **BSC**, enhancing reliability, performance, and future maintainability.
- Built using **TypeScript, Node.js, MySQL, Redis, RabbitMQ, JWT, Refresh Token, Zookeeper, Docker, SendGrid, Twilio**, and **Cron Jobs** for robust, scalable, and secure architecture.

MPC Vendor Wallet

2025 - 2025

- Developed backend functionality to manage vendor onboarding with optional free trial configuration by Admin.
- Implemented logic to track vendor API hit usage, restricting app access once the predefined limit is exhausted.
- Designed and enforced a post-trial monetization model requiring payment for continued app usage or API access.
- Added grace period support configurable by Admin — vendors receive up to **two 5-day grace periods** before mandatory billing is enforced.
- Built using **TypeScript, Node.js, MySQL, Docker, Zookeeper**, and integrated scalable, modular service logic to maintain reliability under high demand.

SKILLS

- **Languages:** JavaScript, TypeScript, C++, Python, GoLang, Solidity.
- **Frameworks & Libraries:** React.js, Redux, Tailwind CSS, Material-UI, Node.js, Express.js, NestJS.
- **Databases:** PostgreSQL, MySQL, MongoDB (Mongoose), Redis.
- **DevOps & Tools:** Docker, Kubernetes, AWS, Git, CI/CD Pipelines.
- **Architecture & Messaging:** Microservices Architecture, RabbitMQ, BullMQ, WebSockets, Zookeeper.
- **APIs & Integrations:** GraphQL, REST APIs, AppsFlyer, CMC API.