

RANJAN SINGH

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PROFESSIONAL SUMMARY

Full Stack Engineer with 6+ years of experience building scalable, user-centric web and mobile applications using React, React Native, Node.js, and Next.js. Proven ability to lead end-to-end product development, architect real-time systems, and deliver AI-enhanced experiences. Deep expertise in cross-platform mobile apps, backend systems, and cloud-native solutions. Adept at turning complex business needs into elegant, high-performing software with a strong focus on performance, maintainability, and modern DevOps practices.

AREA OF EXPERTISE

Full-Stack Web & Mobile Development | React & React Native | Node.js & Express.js | Next.js & Server-Side Rendering (SSR) | RESTful API & Microservices Architecture | AI Integration & Prompt Engineering | Scalable Backend Systems | Firebase & Cloud Functions | Cross-Platform App Development | Docker & Cloud Deployment (GCP) | Real-Time Data Systems (SSE, Socket.IO) | State Management (Redux, Context API) | MongoDB & MySQL | Performance Optimization | Agile & DevOps Practices | CI/CD Pipelines | Codebase Refactoring & Maintainability | Error Monitoring & Debugging (Sentry) | Technical Leadership & Mentoring

PROFESSIONAL SKILLS

- Mobile Application Development (React Native, Redux)**
6+ years of experience building performant, cross-platform mobile apps with deep knowledge of push notifications, real-time tracking, deep linking, and JSX for seamless UX across iOS and Android.
- Scalable Web Architecture (React, Material UI)**
Designed and delivered high-traffic web applications using advanced React techniques including SSR, custom hooks, HOCs, and state management patterns for large-scale e-commerce and B2B platforms.
- Backend API Development (Node.js, Express.js)**
Engineered secure and high-throughput RESTful APIs using Node.js and Express.js, integrating JWT-based auth and data modeling with MySQL and MongoDB to support enterprise-scale workloads.
- Real-Time Systems & Messaging**
Implemented real-time features with technologies like Socket.IO and Firebase, including real-time attendance tracking, instant notifications, and live user engagement for large user bases.
- AI-Integrated Product Engineering**
Developed intelligent, behavior-aware systems including AI-powered journaling and trip planning tools, leveraging frameworks like Langchain to enhance personalization and automation.
- Cloud-Ready & Containerized Deployment**
Hands-on experience with deploying and scaling applications using Docker, Firebase, and Google Cloud Run, ensuring CI/CD readiness, system resilience, and efficient dev workflows.

STACK EXPERIENCE

Languages: JavaScript, Python
Frontend Libraries & Frameworks: React, Redux, NextJS
Backend Libraries & Frameworks: Node, Express, NestJS, Fast API, Langchain, Langraph
Databases: MySQL, MongoDB, Postgres DB, Firebase Realtime DB, Firestore, Pinecone, Redis, Zep (Memory for Chatbots)
Testing & Tooling: Jest, Enzyme, React Testing Library, Webpack, Netlify
Cloud: AWS, Heroku, Digital Ocean, GCP, Firebase, Supabase, Pine Mobile App Development: React Native

CAREER HISTORY

Software Engineer II **Apr 2024 - Present**
Telos, New York (USA)

- Tech Stack: NodeJS, ExpressJS, React, React Native, Docker, Python, Firebase
- Design and implement scalable full-stack architecture to support real-time user interactions using Server-Sent Events (SSE) and Google Cloud Run auto-scaling
 - Deliver AI-driven user experiences by engineering context-aware nudging agents that personalize recommendations based on user behavior and profile data
 - Enhance system performance by optimizing AI prompt engineering and memory infrastructure to support fluid, human-like conversations
 - Develop cross-platform mobile functionality for both iOS and Android, contributing to seamless user experience and unified codebase efficiency
 - Lead backend development initiatives to support dynamic content delivery and rapid deployment cycles, improving application responsiveness and scalability
 - Build internal developer tools in Python that convert HTML into high-fidelity images, streamlining content generation and enriching UX workflows

Software Engineer II
Pilot, Vancouver (Canada)

Jun 2022 - Apr 2024

Tech Stack: NodeJS, ExpressJS, React, React Native, Docker, Python, Firebase

- Designed and implemented an AI-powered trip itinerary generator that increased user engagement by simplifying travel planning based on personal preferences
- Reduced blank-screen churn and accelerated user decision-making by developing an intelligent trip planner with contextual suggestions
- Integrated AI-driven booking import capabilities for transport and accommodation, improving the completeness of travel plans with minimal user input
- Developed an automated system to import emails and attachments into the planner, eliminating manual file uploads and enhancing user productivity
- Revamped backend architecture to improve concurrency and scalability, resulting in faster response times and better handling of peak traffic
- Built and maintained internal tools to monitor application performance and streamline operations, enabling faster debugging and issue resolution

Software Engineer
Aeon Logiciel, Noida (India)

Jun 2021 - Jun 2022

Project: Folio. law is a platform to manage court cases and clients for law firms

Tech Stack: NodeJS, ExpressJS, RabbitMQ, SocketIO

- Designed and implemented a scalable subscription module and real-time notification system using Socket.IO, enhancing user engagement and responsiveness
- Engineered a high-throughput backend with Node.js and Express.js, processing over 20,000 legal case records weekly across multiple law firms
- Reduced backend processing delays by integrating RabbitMQ, significantly improving request queue efficiency and crawl time
- Refactored utility layers using object-oriented programming in both Express and React, cutting the codebase size by over 50% and improving maintainability

Software Engineer
Webbasol, Patna (India)

Sep 2019 - May 2021

Project 1: RevoTelecomParts is a platform to buy and sell telecom parts

Tech Stack: NextJS, ReactJS, Firestore, HTML, CSS

- Designed and optimized scalable React application architecture using functional components and hooks, resulting in improved performance and maintainability
- Engineered a high-traffic e-commerce platform with React JS and Material UI, enabling seamless shopping experiences for telecom product sales
- Enhanced multilingual SEO strategy, boosting organic visibility for over 50,000 SKUs and driving increased user engagement
- Implemented auto-localization for eight languages using browser-based detection methods, eliminating dependency on IP-based solutions

Project 2: Wedcell is a marketplace for wedding-related services and venues

Tech Stack: React Native, NodeJS, ExpressJS

- Architected and developed scalable native applications and backend services, ensuring performance, reliability, and maintainability across multiple platforms.
- Designed robust backend APIs and microservices, enabling seamless integration with front-end applications and third-party systems.
- Improved user experience by implementing deep linking, allowing users to directly access and share vendor or venue content.

Software Engineer
Project Element, Patna(India)

Oct 2017 - Aug 2019

Project: Shambhavitelecom Emp Portal is a platform to manage Field Engineers and tasks

Tech Stack: React, React Native, Firebase, Firestore, HTML, CSS

- Engineered a GPS-based location tracking system using React Native and Firebase, improving real-time accuracy and responsiveness.
- Optimized application startup time by integrating Hermes, reducing initial load latency and enhancing user experience.
- Delivered offline-first location tracking capabilities, ensuring seamless performance in low-connectivity environments.

EDUCATION AND CERTIFICATION

M. Sc (ELT - CS)– A. N College Patna/ Patna Bihar

Aug 2015 - Jul 2017

B. Sc (ELT) – A. N College Patna/ Patna Bihar

Aug 2015 - Jul 2017

CERTIFICATION

Software Architecture & Technology of Large-Scale Systems - Udemy

01/08/2023

Artificial Intelligence A-Z 2025: Agentic AI, Gen AI, and RL - Udemy

02/23/2023