

Kripanshu Singh

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SUMMARY

Founding Full-Stack Engineer who built and scaled 5 production-grade real-time systems to 900+ concurrent users, owning end-to-end architecture across backend, frontend, and infrastructure. Strong expertise in distributed systems, performance optimization, and real-time communication using WebSockets, Firebase, and cloud-native architectures.

WORK EXPERIENCE

CongKong

May 2025 – Present

Founding Full-Stack Engineer

Seoul, South Korea · Remote

- Shipped **5 production-grade real-time platforms** as the sole engineer, owning system design, development, scaling, and deployment with zero handoffs.
- Built **QuizPulse**, a real-time event platform handling **600 concurrent users**, processing submissions in **6.05s** with **1.12s average latency** using WebSocket synchronization.
- Engineered **LiveVote**, scaling Firebase Realtime DB to **900+ CCU** by redesigning data sharding strategy, eliminating write contention under peak load.
- Developed **CheckinPulse**, an offline-first PWA using IndexedDB and AWS SAM sync workers, ensuring **zero data loss under intermittent connectivity**.
- Designed and executed **custom load-testing frameworks** to validate system performance before live production events.

Aarogya ID

Dec 2024 – Mar 2025

Software Engineer

Hyderabad, AP, India

- Built **25+ REST APIs (NestJS)** for doctor onboarding and Aadhaar-linked identity verification as part of India's national health infrastructure (NHPR/HPR).
- Reduced API response time by **40%** by eliminating **N+1 queries**, optimizing serialization, and improving database access patterns.
- Implemented **UHI signing key infrastructure**, enabling secure SSO-based authentication across healthcare applications.

Messold Technologies

Jun 2024 – Aug 2024

App Developer Intern

Delhi, India

- Developed a multi-platform analytics dashboard used by **500+ clients** to track **\$1M+ monthly ad spend** across Google Ads, Facebook, and Shopify.
- Automated ingestion of **200+ ad campaigns** via OAuth 2.0, reducing manual reporting effort by **8+ hours/week**.

PROJECTS

BreakMyAPI (In Progress)

- Building a system that **automatically generates attack scenarios**, detects vulnerabilities, and stress-tests APIs without manual test scripting.
- Designed with **cost-aware architecture** (rate limiting, quota enforcement, infra caps) to prevent uncontrolled scaling costs.
- Stack: Next.js, Node.js, BullMQ, Redis, PostgreSQL (Supabase), WebSockets

Lost and Found App github.com/kripanshu-singh/lost-and-found-app

- Built a cross-platform system with **geo-radius + keyword matching**, notifying users in real time when matching items are reported.
- Implemented **secure session lifecycle** with JWT rotation, FCM token sync, and automated stale session cleanup.

Claim-App claim-management.vercel.app/

- Developed a **dual-role platform (user + insurer)** with JWT authentication and real-time claim tracking.
- Built and deployed **end-to-end in 3 weeks**, covering backend APIs, frontend UI, and database design.

SKILLS

Languages: Java, JavaScript, TypeScript, HTML, CSS, SQL

Frameworks & Runtime: Spring Boot, Node.js, Express.js, NestJS, React.js, React Native, Next.js, Redux

Systems & Infra: WebSocket, Firebase Realtime DB, BullMQ, Redis

Cloud & Infra: AWS (SAM, Lambda), GCP, Docker, Vercel, Render, Railway, Netlify

Databases & Tools: PostgreSQL, MySQL, SQLite, MongoDB, Firebase Firestore, Supabase · Git, Maven, Swagger, IndexedDB

EDUCATION

Veer Bahadur Singh Purvanchal University

2023 – 2027

B.Tech, Computer Science and Engineering

CGPA: 8.01 / 10