# MANAV JAIN

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Software engineer with **7+ years** across backend development, distributed systems, and **production AI/LLM engineering** in HealthTech, EdTech, and GovTech. Expertise in **Ruby on Rails, streaming data platforms, and cloud infrastructure**. Targeting **Engineering Manager, Staff Engineer, or Technical Lead** roles to drive technical excellence, team growth, and business impact.

## CORE COMPETENCIES

- System Architecture
- Distributed Data Pipelines
- LLM Engineering in Production
- Release & Rollout Engineering
- Growth & Experimentation
- Security Hardening
- Observability & On-Call
- Performance Optimization
- Cross-Functional Collaboration
- Team Leadership & Mentoring

## EDUCATION

**B.Tech., Computer Science & Engineering**
GGSIPU, New Delhi | 2019

## OPEN SOURCE & PROGRAMS

**Google Summer of Code 2018**
The Processing Foundation: open-source Java debugger for the p5.js Android compiler · **merged PR #491**

**Google Code-In Mentor**
FOSSASIA, 2017–18

## PERSONAL DETAILS

**Languages:** English, Hindi

**Location:** Mumbai, India

## PROFILE SUMMARY

- Core experience in **Backend Engineering, Distributed Systems, AI/LLM Systems in Production,** and **Technical Leadership**; currently Tech Lead at Ultrahuman.
- Shipped **658 merged PRs across three production codebases in 15 months**; **#1 contributor among 19 engineers** on the internal operations platform.
- Built platforms at scale: **80M+ health signals** ingested, **7M+ firmware updates** delivered, **80 languages** localized by a self-built AI pipeline.

## TECHNICAL SKILLS

- **Languages:** Ruby, TypeScript, JavaScript, Java, SQL
- **Backend & Frontend:** Ruby on Rails, Node.js/Express, React, React Native, Next.js, REST APIs, GraphQL
- **Data & Infrastructure:** PostgreSQL, MySQL, TimescaleDB, MongoDB, Redis, Kafka, Sidekiq, AWS, Kubernetes, Docker
- **AI & LLM:** AWS Bedrock, Anthropic Claude API, multi-agent tool-use pipelines, LLM evaluation & QC, prompt/token-cost engineering, MCP
- **Integrations:** Stripe, Shopify, RevenueCat, HubSpot, OAuth, device APIs (Tesla Fleet, VALD, DICOM)
- **Practices:** code review, A/B testing & rollouts, release engineering, security hardening, observability & on-call

## WORK EXPERIENCE

### Ultrahuman | Tech Lead · Platforms & AI — Apr 2025 – Present

- Core engineer across **three production codebases** (Rails backend, React/TypeScript ops platform, Next.js customer dashboard) with **658 merged PRs in 15 months**; **#1 contributor of 19 engineers**.
- Engineered a streaming health-data ingestion platform (**Kafka → sharded TimescaleDB hypertables**, dual MongoDB) processing **80M+ data points** across 16 metric families for **12,900+ users**, with parallel bulk inserts and 5-min / hourly / daily rollups.
- Built a ringless health engine reaching **sleep-scoring parity with the Ultrahuman Ring** (naps, HRV, restoration, cycles) from phone & wearable HealthKit / Health Connect data.
- Designed and operated **multi-stage LLM systems on AWS Bedrock** generating clinician-reviewed programs: cut generation time **~9×**, raised automated QC correction from **zero to the majority of flagged cases**, and reduced repair-path token cost **95%**, driven by production telemetry.
- Founded the **Performance Center** module of the clinic-operations platform a diagnostics lab runs on (bookings, walk-in check-in, patient journeys, session cockpit, mobile PWA for on-site staff); **18 engineers now build on it**.
- Integrated **on-site & clinical hardware and standards**: wristband printers, QR check-in, musculoskeletal test machines, DICOM ingestion over SQS, and HL7 (LOINC / SNOMED) coding.
- Built an **AI translation pipeline** (generation → review → audit on Bedrock) localizing the product into **80 languages / 1M+ strings**, and a **cohort-based firmware rollout system** delivering **7M+ OTA updates** to smart rings.
- Integrated **Tesla vehicle telemetry** (OAuth across regions, Protobuf fleet-telemetry → time-series, ride detection) behind **129K detected drives**; shipped growth experiments and wellness modes with **120K+ activations**.
- Hardened security & reliability: fixed **BOLA/IDOR access-control vulnerabilities**, de-identified PII in data exports, scaled Kafka / Sidekiq infra on Kubernetes (KEDA) after saturation incidents.

## KEY NUMBERS

**658** merged PRs · 15 months

**80M+** health signals ingested

**7M+** firmware updates delivered

**80** languages · 1M+ strings

**129K** drives detected (Tesla)

**2M** sessions scaled (Code360)

**1.8M** users served (Mahakavach)

## TEAMS LED

**2 engineers** · Ultrahuman backend

**7 engineers** · Coding Ninjas growth

**4 engineers** · Code360 app

**5 volunteers** · Mahakavach

**6 innovators** · DISQ

## PUBLICATIONS

**iBeacon-based Indoor Positioning Systems for Airports**
Int'l Journal of Computer Applications, Vol. 179(43), May 2018 · **DOI 10.5120/ijca2018917058**

## RECOGNITION

**National press coverage, Mahakavach**
Featured by **The Hindu**, **News18**, and **Twitter**

**Patent-pending hardware**
Two-wheeler riding-behavior detection device (DISQ, TCS)

## LINKS

**GitHub:** **github.com/manav-jain**

**Email:** manav.mj.jain@gmail.com

### Coding Ninjas | SDE-3 · Growth Team Lead — Nov 2020 – Apr 2025

- Led the **growth engineering team of 7**: lead management, conversion, attribution, checkout systems, enrolment dashboards, and third-party revenue integrations (Leadsquared, payment gateways, conversions API), through the company's scale-up from **~50 to ~300 employees**.
- **Managed a team of 4 engineers** building the Code360 React Native application end to end: architecture, deployment, error reporting, notifications, and analytics.
- Optimized the Code360 web platform codebase, scaling from **50,000 to 2 million sessions** while supporting high traffic volumes.
- Built a **fault-tolerant CRM lead bridge** with modular logging, recording, and API-call debugging, adopted as a company-wide standard.
- Created an **immutable order ledger** tracking selling price, discounts, credits, payments, and refunds, critical during audits; surfaced flaws in legacy discount and order mechanisms.
- Designed and implemented a custom **A/B testing and rollout framework** for logged-in and logged-out experiences, enabling controlled internal rollouts and public releases.
- Led the **bug bounty program**: bounty decisions, bug assignment, communications, and resolutions.
- Designed and developed platform features: **guided paths, contests with leaderboards, proctoring,** and data filtering systems.

### Mahakavach, MSINS · Govt. of Maharashtra | Backend Lead — Mar 2020 – Oct 2020

- Led a self-organized **remote volunteer team of 5** building the state's COVID-19 health-tracking and contact-detection backend under emergency timelines.
- Served **1.8M users** at **4M requests/month**; MVC backend with RESTful APIs in Express.js and MongoDB, built entirely on open-source tooling.
- Covered by **Twitter, News18, and The Hindu**.

### Digital Impact Square, TCS | Innovator — Jan 2019 – Jan 2020

- Led a **team of 6** building a road-safety platform that incentivizes better riding behavior through a digital rewards ecosystem.
- Developed applications for multiple stakeholders plus a **patent-pending hardware device** detecting tilt, speed, and riding behavior of two-wheeler riders.