

ROHIT RAJAN

Technology Manager | TypeScript / Node.js, AWS, Postgres

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SUMMARY

Senior full-stack engineer with 8+ years shipping production systems in TypeScript, Node.js, React, and PostgreSQL. Six years of AWS in production (EC2, S3, ALB) with Docker, Nginx, and GitHub Actions for CI/CD. Comfortable across the whole software lifecycle from ideation and design through production and on-call, and used to own architecture decisions across a consumer product. The last two years I have also been building AI-adjacent systems on the side of my day-to-day (RAG pipelines with evaluation harnesses, embedding services, and LLM observability), which keeps me sharp on modern data and ML infrastructure. Currently, I lead a 14-person engineering team at Sparklin in Delhi and still write production code daily.

TECHNICAL SKILLS

Languages & Frameworks: JavaScript, TypeScript, Node.js, React, Python (FastAPI, Django, asyncio); PHP/Laravel and C# in earlier work

Backend & API: Node.js REST APIs, microservices, FastAPI async workers, batched retry/backoff patterns for upstream API reliability, service-oriented architecture, monolith decomposition into domain-owned services

Frontend: React, responsive UI work through team frontend, Chrome extension development, cross-device state syncing

Databases: PostgreSQL (6+ years (schema design, query optimization, indexing, migration playbooks), Redis, MongoDB, Elasticsearch, Qdrant (vector search))

AWS & Infrastructure: AWS EC2, S3, ALB, CloudFront; Docker, Nginx, Linux, GitHub Actions for CI/CD; bare-metal deployment; secure development practices, dependency review

ML & AI (adjacent): LangChain, LangGraph, RAG pipelines with evaluation harnesses, embeddings (Gemini, OpenAI CLIP), vector search internals, LLM observability (tokens, latency percentiles, tool-call traces, failure taxonomies), MCP tool wrappers, OpenAI and Anthropic API integration

AI-Assisted Development: Claude Code and Cursor as daily editors; review-first discipline for AI-generated code

Engineering Practice: TDD, code review culture, blameless postmortems, design documentation, runbooks, remote/async collaboration

PROFESSIONAL EXPERIENCE

Senior Engineer & Technology Manager | Sparklin Innovations Pvt. Ltd. Dec 2019 – Present

Hands-on senior engineer writing production code daily in TypeScript, Node.js, and Python. Also, I lead a 14-person team and own the architecture for our consumer products. Today is roughly 50% coding and 50% design and review.

Full-Stack Development and API Design

- Decomposed a legacy Node.js monolith into domain-owned services. Wrote the migration playbook, ran a tenant-by-tenant cutover with reconciliation gates, and kept the legacy path live as a source of truth until the new path passed two full business cycles.
- Built a Node.js/TypeScript personalized feed service using a fan-out async architecture, caching processed feeds in Redis to hold sub-50 ms response times under production load.
- Own architecture across consumer products, from ideation and prototyping through production to on-call ownership and bug fixes. Partner directly with product, design, and QA on new features.
- Own PostgreSQL schema design, indexing strategy, and query optimization across our services. Redesign read paths when the ORM-generated queries stop scaling.

AWS, Infrastructure, and Production Reliability

- Six years of running production workloads on AWS (EC2, S3, ALB) with Docker, Nginx, and GitHub Actions for CI/CD. Own the deployment, monitoring, and scaling story end to end for a consumer product with real user traffic.

- Debugged a production outage where a feed service was timing out only for our largest accounts. Traced it to unbounded collection queries and N+1 lookups, redesigned the read path with paginated queries and database-level indexes, and brought tail latency back under SLA the same day. Swept the codebase for the anti-pattern and found two more services with the same issue before they became incidents.
- Migrated production compute from pure AWS (EC2, S3) to a hybrid Hetzner bare-metal + AWS setup fronted by Nginx. Cost dropped 60 to 70 percent while giving each service more headroom.
- Investigated the axios npm supply chain incident against our deployed dependency graph, confirmed it was clean, and formalized a lightweight dependency review step for future releases.

ML & Data-Intensive Systems

- Built a timestamp-aware RAG pipeline using LangChain tool wrappers. Returns the specific passage plus surrounding context instead of whole documents. Added an evaluation harness that scores retrieval strategies against a held-out question set.
- Designed a Gemini 768-dimensional embedding service as a separate FastAPI async worker that batches and retries independently from ingest. Migrated the production vector search from FAISS to Qdrant so metadata filtering happens inside HNSW traversal instead of as post-filtering.

AI-Assisted Development Practice

- Use Claude Code and Cursor as daily editors across TypeScript and Python. Review-first approach rather than accepting AI output wholesale. Wrote internal team guidance on the criteria we always use to gate AI-assisted PRs: correctness, tests, and observability.

Full Stack Web Developer | Kantag Solutions Pvt. Ltd. Jul 2019 – Oct 2019

- Built custom e-commerce platforms in PHP and Laravel with end-to-end payment gateway integration, inventory management, and hand-tuned SQL for sales reporting.

Web Developer (PHP) | TEMZ Oct 2017 – Jun 2019

- Developed core modules for a custom CRM handling data flow for sales leads and operational tracking.
- Designed and documented REST APIs consumed in production by partner mobile applications and external integrations.

SIDE PROJECTS

WhatsApp Commitment Capture — Chrome Extension + Native macOS App

- Built a Chrome extension that reads the WhatsApp Web DOM to capture commitments and syncs them to a native macOS timer app via a shared Convex backend. Stack: TypeScript (extension), Swift/SwiftUI (macOS), Rust (FFI), Convex.

TickDown — Open-Sourced macOS Menu Bar Countdown App

- Native macOS menu bar countdown app in Swift/SwiftUI, distributed via GitHub releases with DMG.

OPEN SOURCE AND COMMUNITY

Maintainer, Tracer-Cloud/opensre—LangGraph-based SRE agent framework

- Paid maintainer role alongside my full-time job, roughly 5 to 8 focused hours a week on PR review, issue triage, and feature work. Shipped a full Elasticsearch log-source integration wrapped as a LangChain tool with 31 unit tests and raised test coverage on the auth and AWS modules with 34 additional unit tests.

Writing and Building Public

- Publish technical writing on LinkedIn, X, and Medium covering production debugging, AI-assisted workflows, and engineering practice.

EDUCATION

Bachelor of Engineering, Computer Science—SAM College of Engineering & Technology 2013–2017