Rahi Patel

Full-Stack Software Engineer

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SUMMARY

Self-taught full-stack software engineer with 3+ years of building and running production software for businesses: SaaS platforms, CRMs, an ERP, real-time chat, Android, Windows and macOS apps, and the Linux servers behind them. Co-founder of Raw Strix, a multi-tenant cybersecurity competition platform I designed, built and operate on my own. Strong in TypeScript, Node.js, Next.js and PostgreSQL, with a security-first approach and a habit of proving performance with load tests. 10,700+ GitHub contributions and 1,000+ merged pull requests since 2023; GitHub Developer Program member. Worked on site with a client in Dubai (Aug to Oct 2026) and ready to join on a UAE employment visa.

EXPERIENCE

Freelance Full-Stack Software Engineer

2023 - Present

Independent | *Clients: small and mid-size businesses* | *Remote*

- Delivered 20+ production systems end to end, from requirements and design to deployment, monitoring and support.
- Designed an ERP to replace six separate systems (two PHP/MariaDB CRMs, an Express/MongoDB support desk, JSON-file payroll and automation tools) with one Next.js, Node.js and PostgreSQL application: role-scoped modules, encrypted integrations registry, 570+ automated tests, and resumable migration scripts rehearsed for about 150,000 leads, 375,000 activity records and 32,000 transactions.
- Built tele-calling CRMs used daily by agent teams (PHP 8, MariaDB): Excel lead import, click-to-dial telephony (TeleCMI), DLT SMS with delivery reports, follow-up queues, reports, role-based access and 2FA; the largest holds 83,000+ leads.
- Built a real-time support chat and CRM (Express, Socket.IO, MongoDB, Next.js) with WhatsApp and WebRTC voice; led a production audit that found and fixed 21 issues, including 4 critical access-control flaws.
- Shipped cross-platform clients on shared APIs: Windows and macOS apps (Electron), Android apps (Kotlin, Jetpack Compose; Capacitor), and Flutter apps for customers, riders and admins of a delivery service.
- Built a bank-statement monitor that parses statements from four banks and flags payments to unapproved beneficiaries using fuzzy matching (Jaro-Winkler) and balance checks; AES-256-GCM encryption for stored identifiers.
- Automated operations with Puppeteer workers and scheduled Telegram reports; administer Linux servers with Nginx, PM2, systemd, TLS and self-hosted mail (SPF, DKIM, DMARC).

Co-Founder & Managing Director

Oct 2026 - Present

Raw Strix (rawstrix.com) | *Cybersecurity competition (CTF) SaaS* | *Remote*

- Designed and built the full product alone: multi-tenant CTF platform, customer and billing panel, single sign-on service, status page and internal team portal; about 139,000 lines of TypeScript in 10 repositories, 570+ merged pull requests.
- Automated customer provisioning: isolated instance and database per customer, custom domains with DNS verification, nightly backups, and updates that roll back automatically on failure.
- Load-tested for 300 simultaneous players and fixed the bottlenecks: peak login time from 46 s to 0.6 s, lost verification emails from 264 of 300 to zero.
- Migrated the platform from MongoDB to PostgreSQL with a row-by-row verified copy of 34 tables; flag submissions under load went from 19.4 s with errors to 3.9 s with none.
- Built sandboxed browser terminals: one Docker container per player under the gVisor runtime, with resource limits and quotas, tested at 160 concurrent sandboxes.
- Implemented Google and GitHub sign-in (OAuth 2.0 with PKCE, Ed25519-signed tokens), invoicing with GST and UPI payments, and Telegram alerts for every service.
- Negotiated and signed the first sponsorship agreement (Altered Security) and run partner outreach.

Founder & CEO 2023 - 2026

Secure With Techies | Cybersecurity education initiative | Gujarat, India

- Partnered with IIT tech fests (IIT Bombay Techfest, IIT Kanpur, IIT Roorkee) to co-host cybersecurity events for two consecutive years.
- Organised 7 Capture The Flag competitions with about 900 participants in total, on a platform I built and hosted.
- Wrote challenges in web security, cryptography, forensics and OSINT, and delivered hands-on workshops for college students.

SELECTED PROJECTS

Unified ERP (Next.js, Node.js, PostgreSQL, Prisma, Socket.IO): six legacy business systems merged into one, with self-hosted CI runners and checkpointed data migrations with reconciliation.

Credential Vault (TypeScript, Fastify, MongoDB, Electron, Kotlin): encrypted vault for shared business accounts with per-field visibility, approval workflow, audit log and escalating lockout.

Dairy Distribution Platform (Next.js, Capacitor, Android): four apps on one backend for distributors, shops, drivers and admins, in English, Hindi and Gujarati, with credit limits, dues and live driver maps.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, PHP, SQL, Bash, Kotlin, Dart

Frontend: React, Next.js, Tailwind CSS, Three.js, responsive and accessible UI

Backend: Node.js, Express, Fastify, FastAPI, REST APIs, WebSockets / Socket.IO, OAuth 2.0, Prisma

Databases: PostgreSQL, MongoDB, MySQL / MariaDB, SQLite, Redis

Mobile & Desktop: Android (Kotlin, Jetpack Compose), Flutter, Capacitor, Electron

DevOps: Linux, Docker, gVisor, Nginx, PM2, systemd, GitHub Actions, Vercel, CI/CD, backups and monitoring

Security: OWASP Top 10, threat modelling, secure authentication (argon2, TOTP 2FA), encryption at rest, DAST scanning

Testing: load testing, end-to-end testing (Playwright), unit testing (Vitest, Jest)

EDUCATION

Higher Secondary Certificate (12th), Gujarat Secondary & Higher Secondary Education Board Mar 2023
Shree Haribhai Bhagwandas Vidhyalaya, Gujarat

Software engineering and cybersecurity: self-taught since age 14 through documentation, open-source code and production projects.

LANGUAGES

English (professional), Hindi (native), Gujarati (native)