

DIVYUM BHUMRA

Lead Engineer | AI-Native Product Engineering | Frontend Architecture

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SUMMARY

Product-minded Lead Engineer with 7+ years owning customer-facing software from ambiguous requirements through architecture, implementation, UAT, and production. Founding engineer on a healthcare platform led from its initial commit to production, pairing deep React and TypeScript work with product ownership and distributed-team leadership. Works in an AI-native engineering model—agentic coding, context engineering, and multi-agent orchestration—to take on larger implementation scopes while architecture, review, and production decisions stay human-owned, with spec-driven development and Playwright-based verification gates holding the line.

EXPERTISE & TECHNOLOGIES

Product leadership	Discovery, PRDs, user flows, roadmaps, prioritization, feature scoping, customer feedback, release planning, Agile/Scrum
Engineering leadership	Technical strategy, system design, technical architecture, architectural ownership, mentoring, code review, estimation, cross-functional influence
AI-native engineering	Agentic coding workflows, multi-agent orchestration, context engineering, spec-driven development, prompt engineering, structured task decomposition, human-in-the-loop engineering, agentic QA, AI-assisted software delivery, Claude Code, OpenAI Codex, gstack
Languages & frameworks	TypeScript, JavaScript (ES6+), React 19, Next.js, Vite, Redux, Chakra UI, React Router, React Hook Form, Zod, Storybook, HTML, CSS/Sass, Web APIs, code splitting, performance engineering, accessibility
Quality & verification	Playwright, E2E automation, verification harnesses, Vitest, Jest, regression testing, UAT gates, release validation, Sentry, observability, Core Web Vitals
Platforms & infrastructure	GCP (App Engine, BigQuery, Cloud Logging), Grafana, GitHub Actions, CI/CD, Auth0, Azure App Service, webpack, Nx, Google Maps API

PROFESSIONAL EXPERIENCE

Founding Engineer / Lead Engineer | **Denim Health** November 2023–September 2026
Remote, India

- Founding engineer on a healthcare resource-management platform for Community Health Systems care coordinators: authored the initial commit and 87% of 3,379 commits, shipping 87 releases across 1,362 merged PRs into an approximately 107K-line TypeScript and React system used weekly by roughly 200 care coordinators and 300–400 healthcare call agents; moved into the lead frontend and product role in 2025, owning initiatives from discovery and PRDs through UAT, rollout, and post-release support.
- Architected the React 19, TypeScript, and Vite frontend—58 component families, 15 custom hooks, and a 20-module typed API service layer—setting the Chakra UI design system, routing, form, auth, and state conventions every later engineer built on.
- Shipped the platform’s first three AI features: a classification engine for daily alerts and office notes with an agree/disagree feedback loop that logs disagreements as training data; a conversational assistant answering market and practice questions, contributing to the underlying bot as well as its interface; and an AI call-deflection module for transitional care management, built as an 8,700-line isolated micro-frontend on Chakra v3 against a second API gateway inside the same app shell.
- Built the real-time call widget for patient conversation handling—movable picture-in-picture across 3 view modes, inline chart alerts and follow-up reminders, and integrations with 2 electronic health record systems, Athena and Cerner.
- Designed and owned the core UX surfaces: a dual table and card resource grid, unified omni-search, filter drawers with server-driven options, role-based rendering across 4 permission tiers, and a timezone-aware office-hours, closures, and absences system.
- Re-architected Sentry instrumentation—eliminating 94,000+ daily spurious auth errors, fixing 401 redirect loops, and adding route-aware sampling and a 5-minute TTL dedup cache—cutting error volume from 272K to roughly 75K per month and session replays from 96K to under 1K with no loss of diagnostic coverage.
- Designed a HIPAA-safe product analytics pipeline across 5 stages (browser, App Engine, Cloud Logging, BigQuery, Grafana) with HMAC-pseudonymized IDs, fail-closed allowlisting, and route templating so zero PHI leaves the BAA boundary, replacing estimated usage with measured DAU/WAU/MAU ahead of a customer renewal, plus Slack alerts on slow API calls.

- Cut frontend API traffic in critical workflows from 40+ requests to approximately 10–12 by redesigning data fetching and client-side orchestration, and eliminated 90%+ of redundant requests with a custom-fields caching layer.
- Established the team's quality and release infrastructure—Vitest and Playwright across 61 test files, a critical E2E suite gating every PR in GitHub Actions, Husky pre-push hooks, and 8 CI/CD workflows driving automated semver releases and QA/UAT/Prod deploys to App Engine—which doubles as the verification harness around AI-assisted implementation.
- Designed an AI-native software delivery workflow using Claude Code, Codex, and gstack, orchestrating specialist agents across 6 responsibilities—spec analysis, architecture, implementation, code review, browser QA, and release preparation—and applied context engineering and structured task decomposition to parallelize feature work while keeping ownership of architecture and production decisions.

Software Development Engineer 3 | CAW Studios

October 2022–June 2023

Hyderabad, India

- Led frontend development and architecture for Calibrate, a multilingual coding-assessment platform with proctoring, candidate verification, cheating detection, and an autocomplete-enabled coding environment; shaped product strategy and technical direction while owning sprints and the Jira board, supporting live hiring events and 10,000+ users.
- Led a cross-functional team of 3–4 frontend engineers, 2 QA engineers, and 1 designer; mentored engineers, ran code reviews, and coordinated production deployments.
- Established the frontend foundation for Celito, a B2B biotech SaaS product, selecting React, TypeScript, Fluent UI, webpack, Storybook, and an MVC architecture to keep a new codebase consistent as the team grew.

Software Engineer | Topica Edtech Group

2021–2022

Gurgaon, India

- Owned and delivered React and Next.js features for Edumall, a short-skills learning platform serving Thailand, Indonesia, and Vietnam, and drove a product-wide design refresh that strengthened the learner experience for a platform receiving 200,000+ site visits.

Frontend Engineer | Independent / Remote

2020–2021

India

- Built Zollege, a college-search platform, from the ground up with Next.js, growing it past 2.5 million site visits; also translated Figma designs into production React interfaces for a hotel-management SaaS product and built IceCap Group's loan-underwriting application, owning delivery through Azure Pipelines and Azure App Service.

UI Developer Intern | XenonStack

2019–2020

Chandigarh, India

- Revamped XenonStack's careers portal with React, Redux, and Sass, contributing to a 5x increase in job applications, and documented reusable design-system packages with Jest, Enzyme, and Taiko coverage.

AI-NATIVE ENGINEERING SYSTEM

Specification & context	Requirements and PRDs translated into explicit specs, acceptance criteria, and decomposed workstreams before any agent runs, with curated repository context, conventions, and prior decisions supplied up front rather than one-shot prompting
Orchestration	Specialist agents assigned distinct responsibilities—spec analysis, architecture, implementation, debugging, refactoring, code review, browser and Playwright QA, release preparation—and run in parallel where work is independent
Verification	Automated checks, Playwright E2E suites, and UAT gates that every agent-assisted change must clear
Human ownership	Problem definition, architecture, system boundaries, technical review, testing strategy, release quality, and production decisions stay with the engineer

LEADERSHIP BEYOND ENGINEERING

President | Rotaract Club Chandigarh Himalayan

2018–2019

Chandigarh, India

- Led an 800+ member service organization, overseeing programs, people policies, team structure, budgets, marketing, and external representation; raised INR 10 lakh for community initiatives.

Team Leader | Smart India Hackathon 2018, Government of India

2018

National Finalist

- Led e-Rozgaar, an online file-tracking system for government offices, to the national finals from a field of 12,000+ teams.

EDUCATION

PG Diploma in Product Management, Pragmatic Leaders (Y Combinator-backed)

2021–2022

Bachelor of Engineering in Information Technology, UIET, Panjab University

2015–2019