

Mahesh Deshmukh

Senior Full-Stack Engineer | React · AWS · CDN/Edge · CI/CD

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SUMMARY

Full-stack engineer with 8+ years building scalable, distributed web applications in the insurance domain. Strong in React/Next.js and AWS cloud infrastructure: CDN and edge delivery (CloudFront, Vercel, Netlify), API Gateway, load-balanced containerized services (ECS + ALB), and CI/CD pipelines with automated testing. Hands-on with CloudWatch monitoring and cost optimization, and with security controls for multi-tenant systems handling customer PII. Led a team of 10 engineers delivering a multi-tenant SaaS platform.

TECHNICAL SKILLS

Frontend	React, Next.js (SSG / ISR / SSR), TypeScript, JavaScript (ES6+), Redux Toolkit, Redux-Saga, Zustand, React Query, Styled Components
Backend & APIs	Node.js, Fastify, Express.js, NestJS, tRPC, GraphQL, REST
Cloud (AWS)	CloudFront, S3, API Gateway, Application Load Balancer, ECS, Lambda, SQS, SES, EventBridge, Step Functions, Route 53, IAM, CloudWatch
CDN, Hosting & Edge	AWS CloudFront, Vercel, Netlify · static site deployment, cache policies and invalidation
Infrastructure as Code	Pulumi (TypeScript), CloudFormation
Distributed Systems	Event-driven architecture, message queues, serverless, multi-tenant SaaS architecture
Testing & CI/CD	Jest, Playwright, Cypress · test automation in CI · GitHub Actions multi-environment pipelines · Biome
Security	IAM least-privilege, role-based access control, secrets management, tenant data isolation
Databases	MySQL, PostgreSQL, Aurora, DynamoDB, Drizzle ORM
Monitoring & Tools	CloudWatch, OpenReplay, Git, Jira, Agile/Scrum · AI tools: Claude, ChatGPT, GitHub Copilot

PROFESSIONAL EXPERIENCE

Freelance Full-Stack Developer	Sep 2025 – Present
Lead Software Engineer, Synechron Technologies Pvt. Ltd	Apr 2024 – Sep 2025
Senior Software Engineer, Synechron Technologies Pvt. Ltd	Apr 2021 – Mar 2024
Software Engineer, Synechron Technologies Pvt. Ltd	Apr 2019 – Apr 2021
Junior Software Engineer, Synechron Technologies Pvt. Ltd	Aug 2018 – Apr 2019

KEY PROJECTS

MLeap — Multi-Tenant SaaS Platform for Home Appliance Insurance (Synechron, client: Asurion/Assurant) Multi-tenant SaaS platform for B2B client onboarding and B2C policy management, made up of four integrated apps: End-User Portal, Agent/Admin Portal, Control & Configuration Portal and Dev Tool. - Led a team of 10 developers across three integrated applications, owning architecture decisions, code reviews and on-time delivery. - Delivered Next.js front ends and static assets through S3 + CloudFront, configuring cache behaviours, TTLs and deploy-time invalidations for fast, edge-cached delivery. - Ran containerized Node.js/Fastify services on ECS behind an Application Load Balancer with health checks, and exposed APIs through API Gateway. - Built asynchronous, event-driven processing with SQS, Lambda and SES for background jobs and notifications across the distributed system. - Monitored services with CloudWatch metrics, logs and alarms; right-sized ECS resources and tuned caching to improve utilization and reduce AWS cost. - Built GitHub Actions CI/CD for Dev, QA, Stage and Prod with automated Jest and Playwright test suites and Biome checks as quality gates. - Implemented security controls: role-based access, least-privilege IAM roles and per-tenant data isolation to protect customer PII. - Reduced front-end load time by ~40% through component refactoring and rendering optimization; improved API response times by ~30–40% via MySQL query profiling and indexing. - Integrated Amazon Connect for real-time support chat, including a custom agent UI for multi-session handling, status management and chat acceptance/rejection.
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- Implemented GPT-based OCR to extract details from purchase receipts and warranties, reducing manual entry and improving registration accuracy.
- Extended the Dev Tool app so QA could generate policies, verify offers and seed environment-specific test data, cutting QA prep time.

Next.js · TypeScript · Zustand · tRPC · Fastify · MySQL · Drizzle ORM · Jest · Playwright · Biome · GitHub Actions · AWS (CloudFront, S3, ALB, ECS, API Gateway, Lambda, SQS, SES, IAM, Route 53, CloudWatch, Amazon Connect) · OpenReplay

AJKK — Mobile Device Insurance, Agent-Side Application (Synechron)

Replaced a legacy .NET system with a React + Node.js application that lets support agents manage policies, process claims and offer resolutions in real time.

- Migrated critical business features from .NET to a full-stack JavaScript architecture with full functional parity plus new capabilities.
- Led Free Matrix and Suggested Matrix features: device recommendation and selection logic with real-time stock status.
- Built a dynamic calendar control driven by API slot data for shipment scheduling, significantly improving claim workflows.
- Implemented role-based access control and applied business rules across exchange, repair, reshipment and reimbursement claims.
- Integrated shipping-service APIs to show delivery options by postal code and warehouse data.
- Used OpenReplay session capture in production to debug live issues and drive root-cause fixes for critical incidents.
- Used AI tools (ChatGPT, Copilot) to cut development and debugging time by ~20%.

React · Redux · Redux-Saga · React Query · Styled Components · Node.js · Express.js · GraphQL · Jest · Cypress · OpenReplay

PERSONAL & FREELANCE PROJECTS

- **ResumeAI (AWS, Infrastructure as Code):** designed and deployed a serverless and containerized platform with 10 **Pulumi** (TypeScript) stacks: CloudFront, API Gateway, Lambda, Step Functions, SQS, ECS, ECR, RDS PostgreSQL, Cognito and S3.
- **Next.js apps on Vercel & Netlify:** deployed the portfolio (mahesh.theversehub.in) and other Next.js apps, including a Course Notes app (Supabase, Anthropic API, Google OAuth), using static generation and edge-cached delivery with Git-based deploys.

ACHIEVEMENTS

- Led development of a multi-tenant SaaS platform supporting B2B and B2C workflows
- Improved API performance by ~30–40% and reduced front-end load time by ~40%
- Built a custom Amazon Connect agent UI for multi-session chat handling
- Contributed to migration from legacy .NET to a modern JavaScript architecture

EDUCATION

B.E., Computer Engineering — Savitribai Phule Pune University