

MD ADIL

Software Architect (Distributed Systems & Platform Engineering) | Open Source

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PROFILE

Software architect with 11+ years of experience owning architecture for consumer-scale platforms serving **1M+ users**. I specialize in **distributed systems, platform engineering, and frontend/backend architecture**, with deep hands-on expertise in Kubernetes and cloud-native systems.

I have led **organization-wide architectural initiatives** — micro-frontend, GitOps, observability, and performance optimization — reducing deployment time by **80%**, MTTR by **85%**, and infrastructure cost by up to **40%**. Active open-source contributor (15+ npm packages, 2k+ weekly downloads).

EXPERIENCE

Sr. Software Architect

Bajaj Finserv Health

Jan 2020 – Ongoing

Pune, India

- Led Smart Reports & OCR team, built a document processing platform handles 100K+ medical documents/month.
- Built Capsule (in-house UI library) used by 15+ teams, with 99% Lighthouse score and 2-3× faster development.
- Set up micro-frontend architecture and ArgoCD GitOps for 600+ microservices; rebuilt frontend with Next.js for 1M+ users, improved SEO by 300%.
- Cut deployment time from 10min to 2min (80% reduction) and reduced container size by 99%.
- Created and enforced coding guidelines across the organization.

TypeScript

React

Next.js

Node.js

Kubernetes

ArgoCD

Python

Tech Lead & Full Stack Engineer

BigRadar

Apr 2017 – Oct 2020

Delhi, India

- Built the SaaS product end-to-end, covering system design, backend, frontend, and deployments.
- Designed core system structure and data models for a multi-tenant setup.
- Built internal frameworks (MongoDB ORM and Express wrapper) to reduce boilerplate and improve code consistency.
- Worked closely with founders to ship features quickly and onboard early customers.

Node.js

React

TypeScript

MongoDB

Express.js

Sr. Software Engineer

Edunuts

Aug 2015 – Apr 2017

Delhi, India

- Replaced legacy stack with Laravel & Slim, made development faster and code easier to maintain.
- Optimized MySQL schema and indexes, improved query performance and reduced load failures.
- Introduced coding standards and modular architecture.

PHP

Laravel

Slim

MySQL

Node.js

MongoDB

Foundational Software Engineer

Early Career – Web & Freelance Projects

2013 – 2015

Delhi, India

- Started as a freelance frontend developer building websites using **HTML and CSS**, focusing on layout, responsiveness, and usability.
- Progressed into full-stack development as a solo developer and senior engineer at small companies (**Apka Akhbar, Guru Infoways**), designing and developing complete web platforms.
- Built content-driven and e-commerce websites including backend APIs, admin panels, and database schemas using **PHP, Laravel, MySQL, and Bootstrap**.

TECHNICAL EXPERTISE

Frontend / Web

TypeScript React Next.js Vue.js CSS Tailwind
WebSocket WebRTC

Backend

Node.js PHP Go Python Microservices Nest.js
Laravel

DevOps / Cloud

Kubernetes Docker ArgoCD GitOps AWS Azure
GCP

Databases

MySQL PostgreSQL MongoDB Redis

Messaging / Streaming

Kafka RabbitMQ RTMP/HLS

Observability / Tools

Grafana Stack Prometheus ELK Stack Loki Tempo

Build Tools

Git Vite Webpack Rollup

CASE STUDIES

PHP-FPM → Laravel Octane Migration

EdTech Platform

Challenge: Slow responses (800ms avg), poor concurrency, high CPU usage with PHP-FPM.

Solution: Migrated to Laravel Octane + Swoole for async I/O and in-memory caching. Used coroutines, process-level caching, and DB connection pooling.

Impact: Response times: 800ms → 40–60ms, 5× concurrency, 30–40% lower infrastructure costs

Monolith → Microservices Migration

EdTech & SaaS Platforms

Challenge: Monolith caused scaling issues, slow deployments, and delayed feature releases.

Solution: Gradually migrated to microservices on Kubernetes while keeping the old system running, with full observability.

Impact: Better fault isolation, independent deployments, service-level scaling

Real-time Observability Platform

Clients

Challenge: Poor visibility in distributed systems; MTTR over 4 hours for critical issues.

Solution: Built end-to-end observability with tracing, centralized logging, metrics, and Grafana dashboards.

Impact: MTTR: 4+ hours → 30 minutes, 99.99% availability, catch issues before they happen

OPEN SOURCE & PROJECTS

- Minima.js - Modern Node.js framework with functional programming paradigm
- YACS - Real-time chat application without contact sharing (TypeScript, React, MongoDB, Protobuf, WebRTC)
- react-read-otp - React hook for SMS OTP auto-read; **1k+ weekly downloads**
- jq - CLI tool to query/modify data using JavaScript syntax

15+ packages on npmjs.com

EDUCATION

Self-Taught Software Engineering

Independent Learning

📅 2010 – Present

Bachelor of Commerce

University of Delhi

📅 2010 – June 2013