ADNAN SHAFIQ MANGAONKAR

+91 7977232115 ◇ adnans0307@gmail.com ◇ adnan-mangaonkar.com
Goregaon, Mumbai

1 Professional Summary

Full-stack engineer and Forward Deployed Engineer (FDE) with 3+ years of experience owning enterprise platforms from client requirements to production deployment. Spearheaded 3+ major enterprise projects as an FDE at Benchmark Computer Solutions, building and delivering Exhibition Management, CRM, CMS, Document Management, Award, and Center Management systems on React, Angular, Node.js, Next.js, .NET, MS SQL Server, PostgreSQL, Python, and Redis. Strong in system design, performance engineering, high-concurrency scaling, and project management, with AI-based project experience.

2 Experience

Software Developer (SDE 1) & Forward Deployed Engineer July 2023 - Present
Benchmark Computer Solutions Ltd Andheri, Mumbai

- Acted as the primary FDE across 3+ enterprise client lifecycles: requirements gathering, system design, development, deployment, and production support for 8+ enterprise applications, including a Unified Membership Architecture integrating multiple platforms under one identity and membership layer.
- Led a team of 4 delivering an enterprise-level, end-to-end solution with an integrated CRM; managed sprint planning, code reviews, architecture decisions, and client communication, achieving 100% on-time delivery and 30% higher client satisfaction.
- **Exhibition Management System (EMS)** for a large international trade exhibition (Node.js, SQL Server, Redis, React; 20,000 daily visitors/users, 300,000+ attendees): inherited a backend that collapsed at 40 concurrent users and re-engineered it 4 weeks before the live event to sustain **1,000+ concurrent users at 480+ requests/sec (1.7M requests/hour) with 0% errors** under live peak exhibition traffic. Validated via rigorous load simulations modeling 17,000 concurrent user workflows across 17 distinct registration and ticketing journeys: system throughput up 25×, error rate dropped from 45.38% → 0.00
- **Database tier:** audited 2,000+ source files (22,888 anti-patterns) and eliminated per-request connection pools. Added capped pools, a 1,000-slot in-memory admission queue with 503 load shedding, queue-wait vs. execution-time instrumentation, and a layered timeout hierarchy (queue → pool → SQL → watchdog → proxy), cutting DB sessions from 390+ to under 160 with zero stored procedure changes.
- **Server architecture:** deployed an active-active PM2 fleet behind IIS ARR (least-current-request balancing) with intra-cluster spillover, CPU affinity isolating mail/CRM workers from API workers on Windows Server, Redis-based cron leader election, and a real-time cluster telemetry dashboard (event-loop lag, pool usage, heap, queue depth).
- **Redis and queue reliability:** root-caused recurring Redis `ECONNRESET` drops (idle timeout, TCP backlog, WSL2 NAT IP drift, IPv6 dual-stack) for zero disconnects under load; fixed BullMQ unresolved promises, replaced a 130-line `if/else` dispatcher with 42 validated job handlers, and added job and SMTP timeouts for 100

Web Developer Intern, WEBAPPZAP Aug 2022 - Jan 2023
Built and maintained 3 websites using .NET and SSMS, boosting user engagement by 40

Freelance Web Developer, CAP NGO Apr 2022 - Aug 2022
Designed and deployed the NGO's web platform (MEAN stack), increasing traffic and engagement by 25

3 Projects

Enterprise Client Platforms (FDE, requirements to deployment) [React, Angular, Node.js, .NET, MS SQL, Redis]
Center Management System: multi-center operations platform. **Award System:** nomination, evaluation, and results workflow. **Document Management System:** secure document storage, retrieval, and access control. **CMS:** content management for client-managed sites. End-to-end ownership across scoping, architecture, delivery, and production support.

SortStory [React, TypeScript, Asynchronous Generators, Multi-Language Engine]
Interactive multi-stack algorithm and data structures visualizer utilizing asynchronous generator patterns for non-blocking 60 FPS DOM rendering under high complexity. Features sorting, graph pathfinding (A^*, Dijkstra), memory structures, and ML clustering. View Project

Docs Wise Insights [Next.js, Supabase, Python, ML]
AI-powered platform that summarizes, classifies, and predicts outcomes from criminal case data for legal insights. View Project

Dr. Sabir Mujawar Portfolio [Next.js, Supabase]
Production portfolio site with dynamic SEO, geo-targeting, and academic research highlights. View Project

4 Skills

Languages & Frameworks: JavaScript, TypeScript, Python, React, Angular, Next.js, Node.js, .NET, REST APIs
Databases & Messaging: MS SQL Server (SSMS), PostgreSQL, MongoDB, Supabase, Redis, BullMQ
Infrastructure & Performance: PM2 Clustering, IIS ARR, Windows Server, WSL2, Apache JMeter, Load Testing, Capacity Planning, Query Optimization
Engineering & Delivery: System Design, AI-based Solutions, Forward Deployed Engineering, Client Delivery, Project Management, Team Leadership, Agile, Code Review

5 Education

Master of Computer Application, Mumbai University 2023 - 2025
Bachelor of Science - Information Technology, Chetana College 2020 - 2023

6 Research Paper

Trends And Threats In Biometric Data Usage: Perspective On AI-Driven Identity Recognition Systems July 2025
IJSRET, Mumbai University (with Ritesh S.) - View Research

7 Achievements

- BSc-IT **Student Of The Year 2023** (Overall Category), Chetana College.
- Founded **TechnoGyan**, **TechnoDays**, and **Technizia** tech communities and exhibitions, engaging 500+ students.