Majid Ali, MS

Staff Backend For Frontend Engineer | Node.js, NestJS & TypeScript | Monorepos & Distributed Systems

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Karachi, Pakistan (Open to Remote / Relocation)

Summary

Staff Backend & API Platform Engineer with 7+ years of experience designing high-performance, enterprise-grade APIs and microservices using Node.js, NestJS, Express, and TypeScript. Architected AWS EKS/Fargate Kubernetes microservices fleets and NX monorepo shared libraries while cutting Azure cloud spend ∼88% ($12,000 to $1,500/month). Expert in Backend For Frontend (BFF) design, performance optimization, Redis caching strategies, and building developer-friendly platform tools and internal APIs.

Technical Skills

Backend Architecture & APIs
- Core API Frameworks: **Node.js**, **NestJS**, Express.js, **TypeScript (Generics, Decorators, OOP)**, Koa2, RESTful APIs
- Microservices & Messaging: **Backend For Frontend (BFF)**, **NATS Streaming Event Bus**, Microservices, Distributed Systems
- Design Patterns: **Object-Oriented Design (OOP)**, Modular Architecture, Domain-Driven Design, Service-Layer Design
- Platform Tools & Tooling: **Model Context Protocol (MCP)**, Internal Platform APIs, FastMCP, OpenAPI Specs

Monorepos & Developer Experience
- Monorepo Architecture: **NX Monorepos**, Published Shared Service Libraries (**@leafgistics/common**, **entities**)
- Build & Package Tools: **npm/pnpm Package Management**, Shared Entity Definitions, TypeScript Build Configs
- API Client Integration: **API Consolidation (34 to 6 files)**, Provider-and-Hooks Pattern, Dynamic Schema Renderers

Cloud & Container Platforms
- Cloud Compute & Serverless: **AWS (EKS, Fargate, Lambda, Beanstalk)**, Azure App Services, Cloud Functions, GCP
- Containers & Orchestration: **Docker**, **Kubernetes (EKS)**, AWS ECS, Fargate Serverless Compute, Load Balancing
- DevOps & Monorepo CI/CD: **GitHub Actions**, GitLab CI, Multi-Environment Monorepo Pipelines, Automated Testing

Databases & Caching Strategies
- Caching & Performance: **Redis Caching Strategies**, Query Optimization, Performance Tuning, Redshift to ClickHouse
- Database Engineering: **PostgreSQL**, **MySQL**, MongoDB, Database Migrations (139 Active Migrations), Data Modeling
- Security & Governance: **Role-Based Access Control (RBAC)**, VAPT Security Remediation, Input Sanitization, Audit Logging

Observability & Workflow
- Monitoring & Reliability: **AWS CloudWatch**, Azure Application Insights, Datadog (Bridge), Tracing, Sentry Logging
- Tools & Leadership: **Git**, Postman, Linux Administration, Technical Leadership, Cross-Functional Teamwork, Agile/Scrum

Experience

Enterprise Monorepo Architecture & Microservices Platform Dec 2022 – Sep 2023
Backend & DevOps Team Lead, BitsPro Karachi, Pakistan

- Led a 4-person backend team building an event-driven microservices platform (Node.js, NestJS/Express, TypeScript, NATS Streaming), publishing shared npm service and entity libraries across microservices.
- Architected and operated a containerized microservices platform on AWS EKS and ECS running on Fargate behind load balancers, deploying independently-scalable services over an asynchronous NATS event bus.
- Owned the data-warehousing layer for warehouse inventory search across 3 fulfillment centers, migrating from Amazon Redshift to ClickHouse to cut infrastructure cost while preserving fast columnar queries.
- Delivered a B2B SaaS operations suite featuring multi-warehouse zone management, per-resource role-based access control (RBAC), and compliance-grade cycle-count auditing with timestamped history.

High-Volume API Performance, Caching & Platform Tools Jun 2024 – Present
Technical Operations Lead, Sehat Kahani *Karachi, Pakistan*

- Drove Redis caching strategies and VAPT security remediation across three production product lines handling protected patient data, maintaining multi-tenant DB schema evolution over 139 active migrations.
- Built an MCP (Model Context Protocol) server exposing Sehat Kahani's production Azure MySQL database as LLM-callable tools via Python FastMCP, adding a Chainlit conversational interface for data management.
- Led a cross-cloud migration to AWS Elastic Beanstalk for a live telemedicine platform, operating Azure and AWS in parallel across blob storage, Cognito auth triggers, and application monitoring.

Cloud Infrastructure FinOps & Real-Time Frontend API Services Mar 2021 – Dec 2022
Full Stack Developer → Development Team Lead, Zetsol Technologies *Hyderabad, Pakistan*

- Redesigned a national telemedicine platform's Azure infrastructure around Application Gateway, App Services, and Azure Functions, cutting monthly cloud spend from ∼$12,000 to ∼$1,500—an ∼88% reduction.
- Built the real-time video and audio consultation engine for a telemedicine platform using WebRTC (OpenTok) on a Koa2/TypeScript backend with MySQL, plus PubNub-backed realtime chat and push notifications.
- Built and owned CI/CD for a production healthcare platform, automating lint, test, and deploy stages across five environments spanning three separate product lines on a shared monorepo codebase.

Education

MS in Software Engineering 07/2022 – Present
Sindh Agriculture University, Hyderabad, Pakistan

Bachelor of Information Technology (BSIT) 2017 – 2021
Sindh Agriculture University, Tando Jam, Pakistan

Selected Freelance & Contract Projects

- **Founder & Technical Lead, Codenetic:** Earned $200K+ in revenue delivering client software end to end across 300+ applications built and 70+ published to the Apple App Store and Google Play Store.
- **BFF API Consolidation & Dynamic Schema Engine:** Consolidated a mobile application's API integration layer from 34 files to 6 behind a unified provider-and-hooks pattern, building a schema-driven form renderer.
- **PSX Model Context Protocol Server:** Contributed to an open-source Model Context Protocol (MCP) server for financial market data, fixing production issues and publishing updates to PyPI and the MCP Registry.

Authorized to work in the United States