MOEED BHATTI

Senior Full Stack & AI Engineer — Agentic Systems, Backend & APIs

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SUMMARY

Senior full stack and AI engineer with 5+ years building APIs and the systems behind them. Builds LLM features with RAG and tool calling, and designs multi-agent AI systems where planner, implementer, verifier and fixer agents take work from ticket to deploy behind human approval gates. Core stack: Node.js, NestJS and Express on PostgreSQL, MongoDB and Redis, deployed to AWS. Specialises in multi-tenant data isolation, serverless backends that absorb 10,000+ concurrent requests, and background jobs that keep response times flat under load. Owns services end to end, from schema design and API contracts to deployment and production debugging.

SKILLS

Languages	JavaScript (ES6+), TypeScript, SQL
Backend	Node.js, Express.js, NestJS, REST API design, Socket.io, Serverless
Architecture	System design, multi-tenant and semi-multi-tenant, event-driven, microservices, serverless, API gateway patterns
Scale & Perf	Horizontal scaling, background job offloading, Redis caching, high-concurrency request handling, query and schema optimisation
Databases	PostgreSQL, MongoDB, MySQL, Redis (schema design, indexing, data isolation)
Cloud	AWS (Lambda, API Gateway, EventBridge, EC2, S3, CloudFront, EBS), DigitalOcean
Frontend	React.js, Next.js, Vue.js, Astro, HTML/CSS
DevOps	Docker, Git, GitHub Actions, multi-environment CI/CD
Testing	Jest, unit testing, Agile delivery
Auth & Security	OAuth 2.0, JWT, SAML 2.0 / SSO, tenant data isolation
Integrations	Bexio, WordPress, Webflow
LLM & RAG	OpenAI and Anthropic APIs, prompt engineering, tool use / function calling, RAG with embeddings and vector databases, LangChain
AI Agents	Multi-agent orchestration with planner, implementer, verifier and fixer agents running headless under a plain-code state machine, using isolated git worktrees, structured handoffs and human-approved CI/CD deploys
AI Tooling	Claude Code, spec-first development, MCP connectors, webhook-triggered agent runs (Trello, Pipedream)

WORK EXPERIENCE

Senior Backend Engineer / Full Stack Engineer — 10Pearls **Aug 2025 – Present**

Node.js · Next.js · AWS · REST APIs

- Build backend services for a consumer PDF platform with ~5.8k weekly unique users, keeping CPU- and memory-heavy document processing responsive under concurrent load.
- Expanded from backend services into full stack ownership of the product.

Node.js Engineer — Techtiz **Oct 2023 – Aug 2024**

Node.js · NestJS · MongoDB · multi-tenant architecture · healthcare

- Architected one backend serving two healthcare tenants, each running multiple clinics, with strict patient data security and isolation between tenants.
- Resolved the tenant on each request and injected that client's database connection into the request context. Every query hits the correct database, and tenant logic stays out of business code.
- Kept each client's data physically separate, contained failures to a single tenant, and held query performance steady as clients grew. One codebase and one deployment served every client.
- Built a ticket support system on a third-party management portal, with fallbacks that kept support running through provider outages.

Node.js Engineer — TechBucks **Oct 2022 – Oct 2023**

Node.js · AWS Lambda · API Gateway · MySQL · S3 · Serverless

- Built the serverless backend for an asset management system tracking 1,000+ assets per user, with runtime-configurable forms. Admins create and edit forms with any field type, and changes go live on web and mobile instantly, with no redeploy.
- Designed the relational schema to store each submission against its parent form under full ACID guarantees, so records stay consistent as forms change.
- Engineered a serverless API Gateway layer that scales to 10,000+ concurrent requests, with capacity tracking real demand instead of provisioned peak.
- Built a distributed execution layer that runs long jobs asynchronously, off the request path, bringing API response times to 1.3 s on cold start and 300 ms on warm invocations.

Web Developer — Asian Solutions Pvt. Ltd. **Aug 2020 – Feb 2022**

SAML 2.0 · SSO · WordPress · MySQL

- Built a commercial WordPress SSO plugin that acts as a SAML 2.0 Service Provider, so users sign in to WordPress with their corporate credentials.
- Supported 10+ identity providers (Azure AD, Azure B2C, Okta, ADFS, Keycloak, OneLogin, Salesforce, Google Workspace, Shibboleth, Auth0) on one codebase, handling each provider's metadata and configuration quirks.
- Implemented the full protocol, including metadata exchange, AuthnRequest generation, assertion validation and certificate handling, to strict spec conformance.
- Added configurable attribute mapping from any IdP claim to WordPress user fields, plus customisable login pages, so customers fit authentication to their own rules without code changes.
- Wrote a web scraper that collected and stored 10,000+ mixed-type documents for analysis.

SELECTED PROJECTS

ConstructPro — construction management platform (Swiss market)

Node.js · React · PostgreSQL · REST APIs

- Delivered full stack features across order and client management, scheduling, PDF export and the Bexio accounting integration, owning API contracts and data models for each.
- Designed and built a Swiss-compliant time-tracking module from scratch. It covers two-bucket overtime (Überstunden and Überzeit), 45h/50h weekly caps by worker group, per-canton holiday calendars, Sollzeit and vacation logic, and five-year immutable records. The rules come from primary research into Swiss labour law (ArG, ArGV 1, OR) and the LMV construction CLA.
- Modelled the data on a TimeLog / WeeklyTimeAggregate schema with pre-computed weekly rollups, so reports avoid full-table scans as five years of records pile up.
- Planned the module in phases covering schema, REST API contracts and UI components, each shippable on its own.
- Wired the Trello board to Claude Code through Pipedream webhooks, so bug and feature cards trigger coding tasks directly.

D[AI]LY — automated SEO content platform

Node.js · Express · React · AWS Lambda · S3 · LLM APIs

- Built the backend for a hands-off content platform designed to scale to 10,000+ users.
- Implemented scheduling and publishing against the WordPress and Webflow APIs, with media handling and automatic retries.
- Offloaded content generation and other long jobs to dedicated cloud functions, keeping the request path fast regardless of job length.

Taleharbor — social storytelling platform

Node.js · MongoDB · React

- Engineered an architecture serving 1,000+ concurrent active users with high availability.
- Modelled chronological story timelines as the core data structure and shaped read patterns around timeline retrieval.

Teamstart — scheduled event management

Node.js · PostgreSQL · Docker · CI/CD

- Designed a semi-multi-tenant scheduling system for two clients, giving each custom schedules without per-client forks. Their teams of 10–15 staff used it to schedule care for 100+ children.
- Automated development, testing and production environments for staged testing and predictable releases.

EDUCATION

Bachelor of Software Engineering **2022**

COMSATS University Islamabad — Lahore Campus