

Khurram Shahzad

Lead Software Architect • Cloud Systems & AI Engineer

23+ YEARS ARCHITECTURE EXPERTISE

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-  github.com/Khumeer
-  Upwork: 100% JSS (Top Rated Plus)
-  Islamabad (Remote)

EXECUTIVE PROFILE

Lead Software Architect and Systems Engineer with **23+ years** designing and scaling mission-critical multi-tenant SaaS, cloud platforms, and LLM integrations. Proven track record across US, Germany, UK, and Australia with 100% Job Success Score.

KEY SPECIALIZATIONS

- ✓ High-Scale Multi-Tenant SaaS Architecture
- ✓ Applied Generative AI & Autonomous Agent Workflows
- ✓ Deep Root-Cause Debugging & Thread Profiling
- ✓ Zero-Downtime Database Schema Evolutions
- ✓ Enterprise Audit Compliance & Disaster Recovery
- ✓ B2B Data Ingestion & Automated Web Scraping

APPLIED AI & LLM FOCUS

- Dynamic SQL & Schema Grounding:** Self-healing LLM pipelines mapping natural language queries into parameter-safe, optimized SQL.
- Multimodal Vision OCR Workflows:** End-to-end document ingestion converting handwritten diaries and records into structured JSON.
- Autonomous Agents & Scraping:** Headless browser automation with LLM entity extraction and anti-bot mitigation.

TECHNICAL SKILLS

ARCHITECTURE & BACKEND

- Node.js
- Express
- AsyncLocalStorage
- Java 21
- Spring Boot 3
- Python (Pandas/ETL)
- C# (.NET 4.8 / Core)
- RESTful APIs
- Microservices
- Multi-Tenant SaaS
- Flyway Migrations
- System Design

FRONTEND & UI/UX

- TypeScript
- JavaScript (ES6+)
- React 18/19
- Next.js
- Vite
- Bootstrap 5
- TailwindCSS
- EJS
- Semantic HTML5
- Vanilla CSS
- Canvas API
- Performance Optimization

CLOUD & DEVOPS

- AWS (Beanstalk, RDS, S3, EC2)
- Docker
- MySQL
- PostgreSQL
- Ubuntu Linux

FLAGSHIP SYSTEMS & ARCHITECTURE

OmniSchool Platform — Solo Architect & Lead Developer

- omnischoolapp.com | risingstars.omnischoolapp.com (admin/1234)
- Architected multi-tenant SaaS with **AsyncLocalStorage** tenant isolation and automated Flyway schema runner across 75+ database migrations.
 - Engineered decoupled temporal fee schedule engine (fee_schedules) computing student billing dynamically on the fly with live clerk impact previews.
 - Integrated **Gemini 2.5 Flash AI OCR** with client-side canvas rotation/scaling and verification modals for digitizing physical teacher diaries.
 - Implemented dual-write streaming audit engine logging JSON diffs to append-only JSONL files outside MySQL for zero-RPO disaster recovery.
 - Built hybrid Google Places API and Puppeteer DOM scraper, slashing lead acquisition costs by 95% with automated anti-bot bypasses.

UIS Natural Language SQL AI Assistant — AI Systems Architect

- Gemini 2.5 Flash / Node.js / SQL / JSON Schema
- Engineered embedded natural language SQL assistant with domain intent routing, time-aware context builder, and automated self-correction loop.
 - Designed strict schema sandboxing, parameterized query guardrails, and dynamic few-shot injection to prevent hallucinations and SQL injection risks.
 - Built real-time streaming execution loop with query explanation, execution time metrics, and tabular visualizers.

ReportAutomation & Cloud Infrastructure — Lead Backend & Cloud Architect

- Spring Boot 3 / React 18 / AWS Beanstalk / Docker
- Modernized enterprise reporting infrastructure to Java 21, Spring Boot 3, and React 18/Vite, accelerating batch document compilation.
 - Architected containerized UIS Cloud & PartsLocator deployments on AWS (Elastic Beanstalk, RDS, Docker) with multi-threaded synchronization.

Autonomous Lead Ingestion & AI Parsing Suite — Lead Automation & AI Engineer

- Playwright / Puppeteer / Gemini API / Node.js
- Built resilient web scrapers extracting 100K+ business entities with dynamic fingerprint rotation and rate-limiting.
 - Integrated LLM semantic normalization to clean unstructured profiles into validated, schema-compliant CRM leads with 98%+ precision.

WORK HISTORY & LEADERSHIP

Principal Solutions Architect & Consultant — Muhaimin Tech / Freelance

- 2017 – Present | Islamabad / Remote
- Upwork Top Rated Plus (100% JSS) • Long-term client engagements across US, Germany, Australia, and UK.
- Architected and deployed full-lifecycle multi-tenant SaaS & cloud platforms on **AWS (Beanstalk, RDS, EC2, SQS, S3)** and Linux VPS, maintaining 99.9% uptime and zero-downtime schema upgrades.
 - Built production **Applied AI & LLM solutions** (Gemini 2.5 Flash, Claude 3.5 Sonnet) featuring structured JSON output parsing, multimodal vision OCR, and self-correcting dynamic SQL generation loops.
 - Delivered 3-year full-stack engineering engagement for **Körber Digital (Germany)** on OBS logistics platform using Kotlin (Ktor), Vue.js, Azure Form Recognizer, and Docker.
 - Served as Lead Architect for **PLM Group (Australia)** on UIS Cloud SaaS & PartsLocator platform, reverse-engineering legacy SOAP/XML APIs and building AI-powered catalog matching.
 - Conducted deep root-cause debugging in high-throughput production environments, resolving JVM/Node thread pool deadlocks, memory leaks, and complex database query execution bottlenecks.

Lead Software Engineer & Technical Architect — Elivir Technologies