

Muhammad Naveed Akram

Software architect with sixteen years owning design and delivery on the same desk. Across EdTech, consumer apps, payments, social gaming and marketplaces: a PaaS that ships native and PWA apps from templates, a game backend held stable at 5M+ registered users, multi-tenant systems where a new tenant is configuration rather than a fork, a payment gateway that routes each transaction across providers, and AI paths grounded tightly enough to stay auditable. Language-agnostic by habit — Python, JavaScript/TypeScript, Java, Go, C/C++ — with a telecommunication-engineering foundation that reaches below the application layer.

Open to architect, staff and principal roles. Remote-first and long practised at it; relocation genuinely on the table for the right team.

// SELECTED IMPACT

5M+ USERS	Held a social mobile game backend stable at 5M+ registered users and 80K daily actives under sustained load, owning both the server-side systems and the AWS infrastructure beneath them.
ONEX PAAS	Conceived and led OneX at The Entertainer — a platform that assembles, re-skins and ships native iOS / Android / PWA apps from templates — owning product vision, the platform backbone, and recruiting the engineering team that built it.
6-YEAR PLATFORM	Made onboarding a partner organisation a configuration change rather than a source fork, by expressing tenants as mappings and metadata over shared services — modules, locales, access rules and callback behaviour all tenant-scoped.
EVERY TRANSACTION	Built a payment gateway from scratch that selects a provider per transaction against a financial decision matrix — core services, three operator dashboards, and Android and Unity SDKs.

// TECHNICAL SKILLS

LANGUAGES	Python • JavaScript • TypeScript • Java • Go • C / C++ • C# • PHP • Ruby • Swift • Rust
ARCHITECTURE	System Design • Solution Architecture • Distributed Systems • Microservices • Event-Driven Architecture • Multi-Tenant SaaS • API & Contract Design • Technical Strategy • Idempotency & Recovery • Load & Capacity • Security & Privacy by Design
DATA	PostgreSQL • MySQL • MongoDB • Redis • Elasticsearch • DynamoDB • Data Modeling
INFRASTRUCTURE	AWS (EC2, Lambda, RDS, S3, SQS/SNS, Auto-Scaling) • GCP / App Engine • Docker • CI/CD • Nginx • Celery • RabbitMQ
AI & LEADERSHIP	Retrieval & Grounding • Evaluation & Guardrails • Deterministic Scoring • Mentoring • Technical Interviewing • Team Building

// EXPERIENCE

Full-Stack & System-Design Engineer

Oct 2020 – Jan 2026

DQ Institute / DQ-Labs

Singapore • Remote

- ▶ Architected and delivered the core systems of an education platform over a six-year engagement — multi-tenant assessment, content intelligence and AI-assisted authoring — owning backend, frontend and DevOps across a lean team.
- ▶ Designed the tenancy model so a new partner organisation is expressed as mappings and metadata rather than a source fork, with modules, locales, branding, access rules and callback behaviour all tenant-scoped.
- ▶ Built the partner integration contract: tenant-bound credentials, signed freshness-checked requests, duplicate protection, and asynchronous signed delivery with bounded retry and inspectable state.
- ▶ Implemented end-to-end encryption for institutional and minor-user data — identity-linked records inside a key-scoped envelope, plus a de-identified analytics store never joined back to a person.
- ▶ Shipped constrained AI generation: standards retrieved and filtered deterministically, a typed outline validated before per-session generation fanned out across durable, recoverable jobs.

Python • Node.js • TypeScript • React • FastAPI • MongoDB • Redis • Docker • CI/CD

Founder • Principal Architect & Technical Advisor

Jun 2020 – Present

16xBrains

Remote • Fractional / Contract

- ▶ Parachute into stalled or fast-scaling codebases as the senior technical voice, owning the calls that are expensive to reverse: technology selection, service boundaries, the data model, build-versus-buy.

- ▶ Set the technical bar for engineering hires, run the interview loops, and give the reasoned no — repeatedly, for teams that cannot yet assess senior engineers themselves.
- ▶ Stay hands-on by design: every recommendation is one I would have to implement myself, which is the constraint that keeps the advice honest.

Backend Engineer

Vestiaire Collective

May 2022 — Aug 2022

Germany · On-site

- ▶ Four months embedded in the engineering team of a European luxury-resale marketplace, working on backend services inside a large, high-traffic production estate.

Software Architect

The Entertainer

Jun 2019 — Aug 2020

UAE / Pakistan

- ▶ Conceived, architected and led OneX — a PaaS that assembles, re-skins and ships native iOS / Android / PWA apps from templates — designing the headless CMS, data-configuration layer and access control that keep changes safe across every generated app.
- ▶ One of three architects governing the wider estate: authored the solution document behind every critical change, led system-design cleanups with feasibility and cost assessments, and recruited the engineering team while staying hands-on.
- ▶ Introduced Node.js and React / React Native alongside a legacy PHP and Python estate on MySQL, MongoDB and Elasticsearch, advancing the migration toward microservices.

JavaScript · Node.js · React Native · PHP · Python · MySQL · MongoDB · Elasticsearch

Full-Stack Engineer & Solutions Architect

16X-Brains

Nov 2016 — Apr 2019

Pakistan

- ▶ Built the backend and the full AWS estate for a social mobile game that reached 5M+ registered users and 80K daily actives, keeping it stable under sustained load.
- ▶ Solo-architected and shipped a construction takeoff and cost/material estimation product end to end — technology selection through MVP — in 12 months at 15–20 hrs/week.
- ▶ Designed Crawler-as-a-Service, an automated web-data-extraction product, from concept through working prototype.

Python · JavaScript · React · Django · HTML Canvas · AWS Serverless

Senior Software Engineer

Go-Game

Jan 2016 — Nov 2016

Singapore

- ▶ Built goPay from scratch — a payment gateway routing each transaction across providers by financial decision matrix — shipping the core services, three dashboards and the Android and Unity SDKs.
- ▶ Wrote every backend service and supervised the front-end and mobile engineers delivering against them; earlier, built game-server backends in Java on AWS EC2 and RDS.

Python · Java · Django · RabbitMQ · Celery · Nginx · AWS EC2/RDS/DynamoDB

// EARLIER

Oct 2017 — May 2019	Dynamic-Logix / Experts-Cloud · Technology Advisor & AWS Consultant — Owned DevOps and AWS infrastructure across in-house and client work, and mentored junior engineers onto a modern stack.
Dec 2013 — Dec 2015	Khaleef Technologies · Lead Server Programmer — Django backends for a live cricket-scoring platform and a multi-tenant school SaaS with single-click subdomain provisioning and automated server setup.
Sep 2011 — Dec 2013	GVS / DeNA · Senior Software Engineer — Server-side systems for mobile social games; deployed to DeNA's Tokyo office for 3–4 months, shipping two Java Play projects including an HTML5 title that stayed among Japan's top-grossing apps.
Sep 2010 — Sep 2011	TRG Tech · Analyst Software Engineer — Sole developer on a major telemarketing account; automated manual reporting with .NET services, cutting human dependency while lifting throughput and accuracy.

// EDUCATION

B.S. Telecommunication Engineering

2006 — 2010

NUCES-FAST — FULL MERIT SCHOLARSHIP

GPA 3.33 / 4.00 — awarded a full merit scholarship covering tuition and residence for all four years. Teaching Assistant for the Introduction to Computer Programming lab (2007), responsible for grading. Won a speed-programming competition against 50 teams (2009).