

NABEEL AHMED KHAN

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SUMMARY

Senior Backend Architect (6+ YOE) specializing in designing highly scalable, fault-tolerant infrastructure and **Money Movement** systems. Expertise in **NestJS** and **TypeScript** engineering at scale, with proven experience bridging Web2 services to Web3 protocols. Actively developing with **Rust** and Anchor on **Solana**, focusing on distributed data consistency and high-concurrency APIs.

TECHNICAL SKILLS

Backend Architecture: NestJS, TypeScript, Node.js, Microservices, gRPC, Event-Driven Architecture
Blockchain: Solana (Anchor/Rust), Ethereum (Solidity/Hardhat), Smart Contract Security, RPC Integration
Data & Infrastructure: PostgreSQL (Optimization), Redis, Docker, AWS, CI/CD Pipelines, BullMQ
Concepts: Distributed Systems, Idempotency, P2P Networks, Cryptography, High-Concurrency APIs

EXPERIENCE

Senior Software Engineer & Technical Lead

Mar 2023 – Present

BlockApex

Karachi, PK

- Architected **Bulwark**, a Solana security auditing engine, utilizing a hybrid monorepo (NestJS/Rust). Engineered the static analysis tool that parses Anchor programs to detect vulnerabilities automatically.
- Designed the backend for **Midl**, a P2P crypto-fiat bridge, optimizing the system to handle **10,000+ concurrent users**. Implemented idempotent transaction processing to ensure financial data consistency across on-chain and off-chain ledgers.
- Developed **Aasan Bridge**, a cross-chain bridging solution utilizing LayerZero OFT, handling complex state management between EVM chains and Solana to ensure secure asset transfers.
- Rescued the halted **BlockX** network (running on Sigma Prime's Lighthouse client) by diagnosing consensus failures and resolving synchronization deadlocks to restore network liveness.
- Built the backend for high-traffic dApps including the official *Gran Hermano* quiz app, ensuring **100% uptime** during live broadcast traffic spikes via efficient Redis caching strategies.
- Streamlined the full DevOps lifecycle, implementing CI/CD pipelines that reduced average deployment time by **40%** across 8 client projects.

Full Stack Blockchain Engineer

May 2022 – Mar 2023

Xord (Acquired by BlockApex)

Karachi, PK

- Solely architected **Script TV**, a Watch-to-Earn platform on EVM. Designed complex tokenomics smart contracts and built a high-throughput indexing backend to track user rewards in real-time.
- Implemented secure wallet integration and transaction signing flows for Enterprise Ethereum applications, ensuring seamless user onboarding.
- Optimized database queries for a blockchain explorer, resulting in a **40% reduction in API query latency** for historical data retrieval.

Co-Founder & CTO

Dec 2020 – May 2022

Tezeract

Karachi, PK

- Led and mentored a development team of **4 engineers** in building 5+ AI-centric SaaS products, securing early-stage funding.
- Developed **Duckends**, a touchless gesture-control feedback system deployed in **Dubai Mall** kiosks, utilizing computer vision to process real-time video feeds on edge devices.
- Integrated Sabre APIs for an Online Travel Agency (OTA) application, handling **\$50k+ in simulated monthly booking transactions** and managing payment reconciliation.

Lead MERN Stack Engineer

May 2020 – Dec 2020

Xehen

Karachi, PK

- Managed and provided technical guidance to a **3-person MERN stack team**, leading the architectural design that supported the platform's initial **5,000 active users**.

EDUCATION

Virtual University of Pakistan

Lahore, PK

Master of Science in Computer Science

2024 – 2026

University of Karachi (UBIT)

Karachi, PK

Bachelor of Science in Software Engineering

2017 – 2021