

Muhammad Hassan

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Full Stack Engineer experienced architecting high-volume fintech and marketplace platforms with a proven track record of optimizing cloud infrastructure and reducing operational costs through automated solutions. Available for US Time Zone Overlap.

SKILLS

- **Languages:** JavaScript, TypeScript, Go (Golang)
- **Backend Engineering:** Node.js (Express, NestJS, Fastify, Hono), REST, GraphQL, tRPC, gRPC, WebSockets, BullMQ, RabbitMQ
- **Web3 & Fintech:** Smart Contract Integration, Crypto-to-Fiat Payments, Wallet Integration, dApp Development
- **AI & Automation:** LangChain, RAG Pipelines, Agentic Workflows, MCP Servers, Vector Databases (Qdrant), LLM Integration
- **Frontend:** React, Next.js, Remix, Framer Motion, GSAP
- **Database:** PostgreSQL, MongoDB, Redis, Qdrant DB, Cassandra, MySQL
- **DevOps & Cloud:** Docker, Kubernetes, Helm, GitHub Actions, Nginx, AWS, GCP, VPS deployment

EXPERIENCE

BLOCKRITHMS

June 2024 — Present

Software Engineer & Tech Lead

ONSITE

- Owned end-to-end architecture, deployment, and live operations for **8+ production systems** across **fintech, proptech, and marketplace** verticals, sole engineer accountable for uptime, incident response, and infra decisions on revenue-generating platforms.
- Built and maintained platforms serving **10,000–20,000 monthly active users** processing real-money and crypto transactions, making architecture decisions that directly balanced scalability, security, and infrastructure cost.
- Lead and mentor junior developers and **partnered closely with leadership on product-critical systems**, making architectural decisions that balanced scalability, infrastructure cost, security, and long-term operational risk.

FEATURED PROJECTS:

SteamX: High-Scale, Microservices-driven Marketplace & Infrastructure

LIVE / PRIVATE

- Designed a high-volume ingestion engine executing **60,000+ daily external API** calls to sync real-time game pricing across USD and EUR regions, re-engineered the proxy rotation strategy to eliminate rate-limiting failures and **cut infrastructure cost by 87%**, from **\$150 to under \$20/month** approx.
- Diagnosed and resolved a critical **Zombie Worker socket hang** causing system instability in production, implementing manual termination logic that restored full service without data loss.
- Engineered a **custom blockchain indexer** optimized for minimal RPC cost, achieving **99.999%** (five-nines) event-delivery reliability, backed by a **fault-tolerant BullMQ/Redis job system** with dead-letter queues and configurable retry policies.

Crypto-to-Fiat Cards: Fintech & Security

LIVE / PRIVATE

- Built and operated crypto-to-fiat cards platform (**500–1,000 active users**) executing real cross-border transactions, integrating **smart contracts** for automated payment execution and recharge workflows.
- Architected a **proxy layer** over a third-party card provider enabling white-label deployment across 6–7 independent business tenants, each with isolated VPS, database, and domain, from a single shared codebase.

RealEstate Marketplace: Real-estate & Proptech

LIVE / PRIVATE

- Co-architected a **multi-tenant real estate SaaS** backend supporting real-time tenant-buyer messaging, internationalized negotiations, and Stripe-integrated freemium billing.
- Built an **AI-powered listing tool** using LLM-driven content generation, supporting single-unit and multi-unit buildings, with bulk creation of up to **500 child units under one parent property** in a single call.

CONFIDENTIAL CLIENT (CONTRACT)

Aug 2025 — Present

Full-Stack Engineer

REMOTE

- **Eliminated vendor lock-in** on a production fintech platform whose entire codebase, schemas, and routes were tightly coupled to a single backend provider, **re-architected** the integration layer to onboard a second provider as a **drop-in replacement** with zero disruption to existing functionality.
- Architected and built a **multi-tenant crypto payment gateway** end-to-end, from merchant onboarding (APIs, QR flows, webhooks) to secure payment infrastructure, including API key management, webhook protection, key rotation, and custodial payout flows.
- Built front-end applications wired directly into crypto-native backends, integrating wallets (MetaMask, Coinbase Wallet) and contracts.

TECNO SPHERE

Jan 2024 — Jun 2024

Frontend Developer

ONSITE

- Translated complex Figma designs into pixel-perfect, responsive interfaces, achieving **100/100 Core Web Vitals**.
- Crafted highly **interactive UI** experiences using FramerMotion and GSAP, implementing animations to enhance user engagement.
- Optimized frontend performance by implementing lazy loading, code-splitting, prefetching and optimistic UI updates.

EDUCATION

Bachelor of Information Technology, Punjab University (PUCIT)

Lahore, Pakistan | 2020–2024