

# Hassaan Ahmed

## Senior Full Stack Engineer

hassaan.ahmed.work@gmail.com | +92-314-5250088 | Islamabad, Pakistan, 46000 | github.com/murtrax

linkedin.com/in/hassaan-ahmed-293ba818a/

### SUMMARY

Senior Full Stack Engineer with 7+ years of experience building scalable web applications, AI-driven workflow systems, and decentralized applications. Strong expertise in TypeScript/JavaScript ecosystems, startup-scale architecture, and remote-first collaboration with distributed teams. Proven track record of owning production systems end-to-end and shipping high-performance solutions in fast-paced startup environments.

### WORK EXPERIENCE

#### K3-Labs, Senior Full Stack Engineer

03/2024 – Present | New York, USA | Remote

- Joined as a founding engineer and engineered the architecture and MVP before the company's initial funding round.
- Architected a large-scale multi-agent AI system enabling natural-language creation and deployment of complex automation workflows with deterministic structure, dependency, and intent resolution.
- Built AI workflow automation system with 30+ type-safe functions and full TypeScript inference, enabling LangGraph agents, MCP server integrations, and multi-agent orchestration.
- Built backend infrastructure powering thousands of concurrent AI workflows with event-driven execution, Redis-based state management, and fault-tolerant orchestration across horizontally scaled services.
- Deployed a decentralised execution layer operated by independent nodes, providing secure task isolation, peer-to-peer communication, automatic HTTPS tunneling, and integrated monitoring and alerting via Prometheus and Grafana.

#### Team.Finance, Full Stack Engineer

06/2022 – 03/2024 | Canada | Remote

- Architected NestJS-based blockchain indexers, improving query performance by 90% and eliminating third-party data provider dependencies to power real-time DeFi dashboards.
- Optimized NestJS full-stack web application performance by 50%+, reducing LCP, FCP, and TTI through code splitting, lazy loading, and API optimization strategies.
- Led product transition from pay-per-use to multi-tier subscription model, implementing tiered pricing logic, payment gateway integrations, and usage tracking systems.
- Refactored NestJS backend with stricter TypeScript practices, enhanced error handling, and type-safe patterns, reducing production error rates by 30% and improving code maintainability.
- Migrated multiple frontend applications to monorepo architecture, establishing shared component libraries and build pipelines that boosted development velocity and code consistency across products.
- Promoted to Team Lead for 5-engineer team, accelerating feature delivery by 40% through improved sprint planning, code review processes, and clear technical specifications from business requirements.

#### AKRU, Full Stack Engineer

07/2019 – 06/2022 | Islamabad, Pakistan | Onsite

- Created a full-stack real estate tokenization platform enabling SEC-compliant fractional ownership, primary and secondary sales/transfers, and end-to-end property lifecycle management for \$10M+ in tokenized properties.
- Built AWS HSM-backed EVM wallet solution replacing external providers like Magic.link, cutting authentication costs by 50% and enabling white-label wallet-as-a-service offerings to clients.
- Built scalable backend systems and blockchain indexing pipelines delivering real-time dashboards, reducing API latency from seconds to milliseconds through query optimization and caching strategies.

### EDUCATION

#### Computer Science, National University of Sciences & Technology (NUST)

09/2016 – 07/2020 | Islamabad, Pakistan

- GPA: 3.5

### SKILLS

#### Languages

TypeScript, JavaScript

#### Frontend

React, Next.js

#### Backend

Node.js, NestJS, PostgreSQL, Redis, Prisma, REST APIs, GraphQL

#### AI/ML

LangChain, LangGraph, Vector databases, RAG, MCP, Agentic AI workflows, OpenAI API, Anthropic API, Prompt Engineering, LLM integration, Embeddings

#### DevOps

Docker, Git, AWS, GCP, CI/CD, GitHub Actions

#### Practices

Test-Driven Development, Agile/Scrum, Code Review, System Design, Microservices, Event-driven Architecture