

JAKIR HUSSAIN

Senior Full-Stack & AI Platform Engineer
Node.js | Agentic AI | Cloud-Native Systems

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PROFESSIONAL SUMMARY

Senior Full-Stack & AI Platform Engineer with 8+ years of experience building cloud-native and AI-powered platforms using Node.js, TypeScript, React, and GraphQL across fintech and media environments.

Specialized in production AI systems including multi-agent LLM architectures, LangChain/LangGraph orchestration, MCP-based tool integrations, and Retrieval-Augmented Generation (RAG) pipelines deployed on scalable cloud infrastructure.

WORK EXPERIENCE

LEAD - TECHNOLOGY

Synechron Technologies LLC (Client: Emirates NBD)

Dec 2024 - Present
Dubai, UAE

Enterprise AI Platform - Emirates NBD

Leading the architecture and rollout of Emirates NBD's enterprise AI platform to standardize development of secure, production-grade LLM applications and accelerate AI adoption across engineering teams.

- Architecting a centralized **AI development platform** enabling teams to build scalable AI applications with standardized tooling, governance controls, and reusable infrastructure.
- Designing reusable **multi-agent orchestration frameworks** using **Node.js, TypeScript, LangChain, and LangGraph** to simplify development of enterprise AI workflows.
- Building shared **AI SDKs and MCP-based tool infrastructure** enabling secure integration with internal enterprise systems and APIs.
- Establishing enterprise **AI governance and guardrails** including prompt safety, authorization controls, data masking, and compliance validation aligned with banking regulations.
- Collaborating with a cross-functional **AI engineering squad** to improve developer productivity and accelerate experimentation across treasury, analytics, and operations teams.
- Accelerated internal AI development by enabling reusable agent frameworks adopted across multiple engineering teams.

Technologies

Node.js, TypeScript, LangChain, LangGraph, MCP (Model Context Protocol), Multi-Agent Systems, RAG, Vector Embeddings, OpenAI, Claude, LLaMA, Redis

Treasury AI Copilot (Calypso Integration) - Emirates NBD

Architected and delivered an AI assistant enabling real-time treasury insights and operational decision support within a regulated banking environment.

- Built a **multi-agent LLM system** using Node.js and TypeScript enabling deterministic orchestration, tool execution, and auditable response validation.
- Implemented **LangGraph-based agent orchestration** supporting workflow control, retries, and failure isolation for complex treasury operations.
- Developed **Retrieval-Augmented Generation (RAG)** pipelines using vector embeddings to provide context-aware responses while preventing sensitive data exposure.
- Integrated **Model Context Protocol (MCP)** tools to securely invoke **Calypso APIs** for treasury data retrieval and operational workflows.
- Implemented **Redis session memory and caching** to maintain conversational context and enable low-latency AI responses.
- Integrated multiple LLM providers (**OpenAI, Claude, LLaMA**) with dynamic routing, fallback strategies, and sensitivity-aware response handling.

Technologies

Node.js, TypeScript, LangChain, LangGraph, MCP, Multi-Agent Systems, RAG, Vector Embeddings, OpenAI, Claude, LLaMA, Redis, Calypso APIs

SKILLS

AI / LLM ENGINEERING

LangChain / LangGraph
Model Context Protocol (MCP)
Agentic AI Systems
Retrieval-Augmented Generation (RAG)
Vector Embeddings
Vector Databases
LLM Function Calling
LLM Evaluation
AI Observability
Prompt Engineering
OpenAI API
Claude
LLaMA
LLM Streaming (SSE)
AI Guardrails

BACK-END & APIS

Node.js
Bun
TypeScript
Express.js
Hapi
REST APIs
GraphQL
Apollo GraphQL
GraphQL Modules
Prisma ORM
Sequelize ORM

FRONT-END

React.js
Next.js
Redux Toolkit
React Query
React Router
Tailwind CSS
Material UI
Styled Components
Framer Motion
Vite
Webpack
Babel
Storybook

MOBILE & DESKTOP

React Native
Expo
Electron
Tauri
React Native WebView

Open Finance Platform — Emirates NBD

Owned backend architecture and API development for Emirates NBD's Open Finance Platform under the UAE Central Bank "**Compete & Comply**" Open Banking framework.

- Designed and delivered **Node.js and TypeScript microservices** enabling secure consent-driven financial data exchange between Licensed Financial Institutions (LFIs) and Third-Party Providers (TPPs).
- Built **REST and GraphQL APIs** using Express and Apollo GraphQL integrated with React dashboards for regulatory and consent workflows.
- Integrated **3Scale API Gateway** and automated CI/CD pipelines (Jenkins, OpenShift), reducing release cycles by approximately **40%**.
- Worked directly with UAE Central Bank stakeholders to ensure compliance with Open Banking standards, security policies, and governance requirements.

Technologies

Node.js, Express.js, TypeScript, REST APIs, GraphQL, Apollo GraphQL, React.js, MongoDB, Docker, Kubernetes, OpenShift, 3Scale API Gateway, Jenkins

SOFTWARE ENGINEER II Condé Nast Technology Lab

Jun 2021 – Nov 2024
Bangalore, India

The New Yorker — Personalization & Content Platforms

- Built a **full-stack AI-driven personalization platform** integrating ML recommendations with React and Next.js editorial products, increasing engagement by **27%**.
- Developed scalable **React and Next.js applications** backed by GraphQL APIs serving high-traffic editorial content.
- Implemented **Kubernetes CronJobs** for automated Instagram caption ingestion and continuous content synchronization.
- Delivered **server-driven UI architecture** reducing duplicated frontend layout logic by approximately **40%**.
- Improved reliability and performance through monitoring and optimization using **Datadog** and frontend performance instrumentation.

Technologies

React.js, Next.js, TypeScript, GraphQL, Node.js, Prisma, MongoDB, Kubernetes, Terraform, AWS, GitHub Actions, Datadog, Fastly CDN

SOFTWARE DEVELOPER HTC Global Services

Feb 2020 – Jun 2021
Chennai, Tamil Nadu, India

Project: Manipal Education and Lead Management

- Built microservice-based **Node.js REST APIs** supporting **50K+ students** on Manipal University's online education platform.
- Developed serverless data pipelines using **AWS Lambda, SQS, and DynamoDB**, improving lead processing speed by **60%**.
- Integrated **Elasticsearch** for search and analytics capabilities.

Technologies

Node.js, Express.js, TypeScript, DynamoDB, Elasticsearch, AWS Lambda, SQS, Docker, AWS EC2

NODE JS DEVELOPER Develop Script LLC

Dec 2018 – Jan 2020
Chennai, Tamil Nadu, India

Project: Mazzady, Sothebi, PreRio, SlotCycle

- Built real-time auction platforms using **Node.js, Express, and Socket.IO**.
- Implemented **Redis Pub/Sub** for low-latency bid synchronization across concurrent users.
- Developed React-based admin and bidding interfaces with real-time updates.

Tech Stack

Node.js, Express.js, React.js, Socket.IO, Redis, MySQL

DATA & SEARCH

MongoDB
PostgreSQL
MySQL
DynamoDB
Redis
Elasticsearch

CLOUD & DEVOPS

AWS
Lambda
S3
Docker
Podman
Kubernetes
OpenShift
Terraform
GitHub Actions
Jenkins
Serverless Architectures

TESTING

Playwright
Cypress
Jest
Mocha
Chai
Cucumber.js
Vitest

ENGINEERING PRACTICES

System Design
Software Architecture
Microservices
Distributed Systems
Performance Engineering
Secure Development
CI/CD Automation
Accessibility (WCAG)

HIGHLIGHTS

AI Platform Engineering
Production LLM Systems
Open Banking Platforms
High-Traffic Media Systems

EDUCATION

B.E. IN MECHANICAL ENGINEERING

Arunai Engineering College
Aug 2013 – Jun 2016

DIPLOMA IN MECHANICAL ENGINEERING

Kumaran Polytechnic College
Aug 2010 – Jun 2013

LANGUAGES

English, Tamil, Hindi

LINKS

Portfolio — iam-hussain.site
LinkedIn — linkedin.com/in/iam-hussain
GitHub — github.com/iam-hussain