

Moatasim bin Hisham Sayyid

SOFTWARE ENGINEER — BACKEND & APPLIED AI

sayyid.moatasim2@gmail.com • +92 309 3078437 • github.com/moatas19m • linkedin.com/moatasim

Summary

Software Engineer with 2.5+ years building production backend systems in C#/.NET and Python — distributed, event-driven, and cloud-native on AWS. Redesigned a GIS processing pipeline with AWS Step Functions to cut end-to-end latency by 77%. Equally at home in applied AI: shipped a production retrieval-augmented generation agent and a Model Context Protocol server serving 700+ colleagues, and built the internal practices that help a whole team ship faster with AI tools.

Skills

Languages	C#, Python, TypeScript/JavaScript, SQL
Backend	ASP.NET Core, Node.js/NestJS, FastAPI, Django REST
Cloud & Infra	AWS (Lambda, Step Functions, S3, SQS, EventBridge, ECS), Azure; CI/CD (Bitbucket, Azure Pipelines)
Data	PostgreSQL, SQL Server, MongoDB; event-driven pipelines, RabbitMQ, Amazon SQS
Applied AI	RAG, Model Context Protocol (FastMCP), LangChain, AWS Bedrock, embeddings; AI-assisted development (Claude Code, Cursor)
Architecture	Distributed Systems, Event-Driven & Domain-Driven Design, Clean Architecture
Geospatial	GDAL, ODA, Mapbox, GeoJSON

Experience

Software Engineer

Sep 2023 – Present

Folio3 — Karachi (Trainee → Backend / Full-Stack)

- Build and operate production backend services across **6 enterprise applications** in ASP.NET Core using Clean Architecture and Domain-Driven Design, with integrations over RabbitMQ and Microsoft Dynamics FinOps.
- Designed, shipped, and operate a production **RAG agent serving 700+ employees** through an internal portal, with a custom **Model Context Protocol server (FastMCP)** that executes actions from natural language.
- Introduced **AI-assisted code review** (35% faster PR cycles) and delivered 8–9 company-wide sessions on agentic AI, MCP, and spec-driven development — lifting how the wider team builds with AI.
- **GIS platform (LandTeller):** re-architected a monolithic .NET service into an event-driven AWS pipeline (Step Functions state machine, 1,200+ lines ASL; S3 → EventBridge → SQS → Lambda), **cutting end-to-end processing latency by 77%** on multi-gigabyte files.
- Integrated GDAL/ODA for CAD-to-GeoJSON conversion, including porting parts of a **C++ SDK into native C#** for in-process debugging.
- Built a dual-backend logistics platform (Node.js/NestJS + Django) and CI/CD pipelines (Bitbucket → Azure) that cut deployment time by 60%.

Selected Project

Recruit Ranks — Final-Year Project

NLP • LLMs

NLP candidate-to-job ranking system: fused embedding similarity (`text-embedding-ada-002`) with a **cross-provider LLM debate** (ChatGPT vs. Gemini, judged by an LLM) to produce a 0–100 fit score with a written rationale. Supervised by Dr. Imran Khan.

Education

B.Sc. Computer Science — Institute of Business Administration (IBA), Karachi

2024