

# SHAFIQ IMTIAZ

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## PROFESSIONAL SUMMARY

Senior Software Engineer with 5+ years building production AI platform infrastructure and enterprise microservices, architected Large Language Model (LLM) integration layers and agentic frameworks alongside event-driven systems, REST APIs, and full-stack features serving 2,500+ client configurations. Demonstrated technical leadership through major-version platform migrations (Java 8 to 17, Spring Boot 2 to 3, React 18.3, React Router v7, Vite 7), critical production incident resolution, and building standalone microservices from scratch as sole engineer. AWS Certified AI Practitioner.

## TECHNICAL SKILLS

- **Languages:** TypeScript, Java 17, JavaScript, Python (Scikit-learn, Pandas, NumPy)
- **AI & LLM Platform Engineering:** Large Language Model (LLM) Orchestration (LiteLLM), LangChain, LangGraph, Machine Learning, Embeddings & Cosine Similarity, LLM Integration Hardening, AI Feature Productionization (Caching, Fallback, Gating), Agentic Workflow Design, Spec Driven Development, MCP Server Integration, Retrieval-Augmented Generation (RAG) Pipelines, n8n
- **Backend & Architecture:** Spring Boot 3, Spring Cloud Gateway, Node.js, Quarkus, RESTful API Design, Spring Data JPA, Microservices Architecture, Distributed Systems, Event-Driven Architecture, System Design, CLEAN Architecture, Domain-Driven Design
- **Frontend:** React 18 (React Router v7, Vite, @tanstack/react-query, React-Table)
- **Data & Storage:** PostgreSQL, pgvector, MongoDB, MySQL, Redis / Redisson, Elasticsearch, ETL Pipeline Design, Query Optimisation
- **Cloud & DevOps:** Cloud Computing, AWS (S3, SQS), Docker, Kubernetes, Jenkins, Git, CI/CD, Sentry
- **Messaging:** JMS / ActiveMQ
- **API & Documentation:** OpenAPI 3 / Swagger
- **Auth & Security:** OAuth 2.0, SAML, Client-Side Field Encryption
- **Practices:** Agile, Technical Leadership, Code Review, Mentorship

## PROFESSIONAL EXPERIENCE

**Senior Software Engineer** | Flexspring | Ottawa, ON | May 2026 – Present

B2B HR integration platform serving 2,500+ client configurations

- Hardened platform-wide LLM integration – added unit tests, resolved SonarQube findings, removed hardcoded API keys in favor of a secure config layer, and established a reusable service adopted across Monitor, Studio, and shared libraries.
- Developed AI-driven field recommendation system for Data Mapping – embedding-based reranking, cosine similarity matching, Redisson caching, and LiteLLM fallback; frontend hook with debounce/abort/retry, per-target suggestions, bulk recommendation, and role-based enableAI gating.
- Overhauled flexspring-agent-core installer with MCP setup and skill registry configuration; built a PostgreSQL-to-MongoDB webhook template migration tool supporting the platform's data-layer consolidation.
- Delivered Data Mapping – a self-service specification tool powered by AI field recommendations, replacing manual spreadsheet-based workflows; governance controls enforce read-only on Technical Review sign-off.

**Software Engineer** | Flexspring | Ottawa, ON | May 2024 – May 2026

- Architected flexspring-agent-core – TypeScript/Node.js agentic AI library integrating LiteLLM for model-agnostic LLM orchestration; applied Spec Driven Development so agents operate against defined API contracts, including MCP server schema definition and access boundaries for safe, scalable tool use.
- Designed and implemented Monitor Lifecycle feature end-to-end – Spring Boot REST API, JMS/ActiveMQ consumer for event-driven ingestion, PostgreSQL/MongoDB schema updates, and React UI across project and integration-level flows.
- Diagnosed and resolved a critical production database incident – authored idempotent PostgreSQL and MongoDB correction scripts under live conditions, normalising corrupted lifecycle data and unblocking client integrations.

- Shipped Webhook Templates end-to-end across Engine, Studio, Webhook Core, Webhook Explorer, and Onboard API – multi-service feature with Studio Template ID propagation and integration-level filtering across distributed systems.
- Led Spring Boot 3 migration of Flexspring Studio – updated framework dependencies, resolved breaking API changes, validated end-to-end, and deployed to production without regression.
- Won runners-up and \$1,000 prize at internal hackathon designing a RAG-powered chatbot using Crewdle AI and Flexspring data – seeded the company's ongoing AI initiative.

#### **Software Engineer Intern** | Flexspring | Montreal, QC | May 2023 – May 2024

- Led Alcatraz Java 8 to 17 and Spring Boot 2 to 3.0.6 upgrades (first major platform task) – resolved JMS/ActiveMQ configuration and HealthChecker incompatibilities introduced by the framework change; deployed to production with no regression.
- Engineered flexspring-file-manager from scratch – standalone Quarkus microservice with multi-region AWS S3 storage (US/EU), MongoDB metadata layer, per-item permissions (READ/WRITE/DELETE), SQS event reconciliation, Sentry observability, and OIDC authentication via AWS Cognito; sole engineer across service, API gateway, and React UI.
- Implemented event-driven S3 and MongoDB synchronisation via AWS SQS event notifications, ensuring database state consistency independent of API interactions.
- Delivered Credentials Manager full-stack: Spring Boot REST API, ConnectorHub integration, React UI with connector-specific form rendering, client-side field encryption, and automated email dispatch.

#### **Full Stack Software Developer** | BSRM | Chittagong, Bangladesh | Apr 2019 – Jun 2021

*One of Bangladesh's largest steel manufacturers with enterprise-scale supply chain operations*

- Built APS Dashboard X (React, Node.js, Java/Spring Boot) – a planning and scheduling system for consumables procurement, stock management, and shipment scheduling; increased Material Requirement Planning efficiency by 89% over manual processes; nominated for Young Supply Chain Talent of the Year at IPDC Supply Chain Awards 2019.
- Engineered ETL pipelines integrating 40+ supplier systems into PostgreSQL-based procurement analytics with 100% audit compliance; developed Python (Scikit-learn, Pandas) machine learning forecasting module within the dashboard reducing overstock by 15%.

#### **KEY ACHIEVEMENTS**

- **AI Platform Foundation:** Designed flexspring-agent-core – the platform's AI agent framework with model-agnostic LLM orchestration, Spec Driven Development, and MCP server integration for safe, scalable tool use.
- **Platform Modernisation and AI Enablement:** Led Spring Boot 3 migrations for two production services and modernized Monitor's frontend stack (React 18.3, React Router v7, Vite 7) – establishing the runtime foundation for LLM integration.
- **AI Initiative Origins:** Retrieval-Augmented Generation (RAG) proof-of-concept at company hackathon that led to formal investment in AI platform infrastructure.
- **Production Incident Resolution:** Diagnosed and resolved corrupted database records blocking client integrations, authoring idempotent correction scripts across PostgreSQL and MongoDB under live production conditions.

#### **EDUCATION**

- **MEng Software Engineering (Co-op)** | Concordia University | Montreal, QC | 2022 – 2024
- **BSc Electrical and Electronics Engineering** | Islamic University of Technology | Bangladesh | 2015 – 2018

#### **CERTIFICATIONS**

- **AWS Certified AI Practitioner** | Amazon Web Services | Nov 2025

#### **VOLUNTEER EXPERIENCE**

- **Director of Sponsorship** | HackConcordia | Montreal, QC | Oct 2022 – Apr 2023
  - Organized ConUHacks VII, the largest hackathon in Quebec with 800+ participants from 97 universities.