Suman Debnath

Software Engineer | Java, Spring AI, LangGraph, MCP, ReactJS

sumandebnath4ever@gmail.com | +91 89748 63731
linkedin.com/in/suman-debnath6 | github.com/sumexxx
sumandebnath.co.in | leetcode.com/u/sumexxx
sumexxx.github.io | x.com/sumex_in

Professional Summary

Full-Stack AI Platform Engineer building **production-grade AI platforms** and **cloud-native backend systems**. Specializing in the AI platform stack, including **MCP servers, LangChain/LangGraph agents, and Spring AI**. Experienced in **Java, Spring Boot, Python**, building scalable backend services, **Microservices**, and REST APIs, alongside responsive, high-performance frontend applications using **React, Next.JS and TypeScript**. Hands-on expertise in **database design, cloud infrastructure, containerization, CI/CD, production deployment on AWS and observability stack using Grafana**.

Education

Bachelor of Technology in Computer Science Engineering
Shri G. S. Institute of Technology and Science, Indore, India — Dec 2021 – June 2025
Relevant Coursework: Data Structures & Algorithms, OOP, Operating Systems, Machine Learning, AI, Web Development, Agile Software Development.

Experience

Software Engineer
Ascentt AITek Pvt. Ltd., Indore — May 2025 – Present

- Engineered **AI-powered backend services** with **FastAPI, PostgreSQL, and LLM/MCP architectures using FastMCP**, exposing enterprise operations as **agent-callable tools** and automating multi-step workflows across **5–6 Orbis modules**, reducing turnaround time and manual effort.
- Designed and implemented a **Rule Engine integrated with Temporal**, enabling users to define custom rules and side effects triggered by API events. Implemented **rule versioning, retries, and fault tolerance** to ensure reliable workflow execution.
- Designed **scalable backend APIs, data models, and reusable React/Next.js components** across project management, resource planning, timesheets, contracts, and workflow automation in an **Agile sprint workflow**.
- Standardized **UI patterns and shared components** across Orbis modules, improving design consistency and delivering a simpler, more intuitive user experience. Participated in **architecture reviews and system design** with senior engineers, defining service boundaries, API and tool contracts, and **resilient, highly available** service architectures.
- Owned **testing, debugging, and incident resolution** for AWS-deployed services; collaborated on **CI/CD pipelines and Grafana observability**.

Trainee Engineer
Ascentt AITek Pvt. Ltd., Indore — Feb 2025 – May 2025

- Shipped backend API integrations and **React/Next.js** components for Ascentt's **Agent AI platform**, landing a first merged PR within the initial sprint.

Projects

PrepIndia: AI-native exam preparation platform — 2026 – Present

- Built a **Spring AI MCP server** exposing **24 content tools** behind API-key auth, with **idempotent natural-key upserts** so LLM-driven ingestion is safely re-runnable.
- Architected a **LangGraph agent** (LangChain MCP adapters, Gemini) with planning tools, **parallel read-only subagents**, **human-in-the-loop approval interrupts** before writes, token budgets, and **Postgres-checkpointed** resumable runs.
- Applied **prompt and harness engineering**: server-enforced permission-scoped tools, prompt-injection guards, streamed run events, and **Langfuse + OpenTelemetry** tracing; shipped with Spring Boot, Next.js SSR, Elasticsearch, Redis, and **Ansible**-deployed VPS with Prometheus/Loki/Grafana.
- ***Tech*: Spring AI, Java, MCP, LangGraph, LangChain, Langfuse, Spring Boot, TypeScript, Next.js, PostgreSQL, Elasticsearch, Redis, Docker, Ansible, Grafana, Loki, Prometheus**

Sencoline E-commerce Website | *WEBSITE* — Feb 2025 – Present

- Architected a **production Spring Boot backend** for a UAE-based B2B trader — **hundreds of SKUs**, quotations, and orders with **multithreading, Hibernate/JPA, migrations, and advanced search** on PostgreSQL.
- Cut API latency **~40–50%** with **Redis caching** and optimized ORM access; integrated an **MCP server** for AI-driven automation and an **SSR Next.js** admin frontend, monitored on a VPS with Grafana.
- ***Tech*: Spring Boot, Java, Hibernate/JPA, PostgreSQL, Redis, Next.js, TypeScript, MCP, Grafana**

Technical Skills

- **AI & Agents**: MCP, LangChain, LangGraph, Spring AI, Prompt & Harness Engineering, Human-in-the-Loop & Multi-Agent Orchestration, Langfuse, OpenTelemetry, Claude, Gemini, Claude Code
- **Languages**: Java, Python, TypeScript/JavaScript, SQL, C/C++ (academic), HTML, CSS
- **Backend**: Spring Boot, FastAPI, NestJS, Microservices, REST APIs, Kafka, PostgreSQL, MongoDB, Redis, Elasticsearch, Hibernate/JPA, Flyway
- **Frontend & App**: Next.js/React, Redux, TanStack Query, Flutter, ElectronJS, Vite, Figma
- **Cloud & DevOps**: AWS (ECS, EC2, Lambda, S3), Docker, Kubernetes, Ansible, Jenkins, GitHub Actions, Prometheus, Grafana.
- **Testing & Tools**: JUnit, Jest, Vitest, Git, Postman, Maven, Gradle, Linux, Jira, Agile/Scrum

Leadership/Extracurricular Activities

Entrepreneurship Cell, SGSITS – Head of Web Development — 2023 – 2024

- Led development of E-Cell SGSITS official website and coordinated the E-SUMMIT event across a cross-functional student team.

Indhan Paygate Pvt. Ltd., SIF – UI/UX Designer — 2022 – 2023

- Designed complete UI/UX for the IndhanPay mobile app including full branding and marketing design assets.