

# Moudipa Jana

Software Engineer | Backend Developer (Go | Distributed Systems)

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## EDUCATION

### M.Tech, Computer Science Engineering Spec. in Data Science

2020 – 2025

VIT, Vellore

Data Structures & Algorithms, Operating Systems, Object-Oriented Programming, Computer Networks, Computer Architecture, Database Management Systems, Software Engineering, Artificial Intelligence, Linux, ASIC

## TECHNICAL EXPERIENCE

### Associate Software Developer

08/2024 – Present | Kolkata, West Bengal

Spandan Advance Medicare Pvt. Ltd.

- Led the **backend engineering** and production delivery of **Selus**, an enterprise **AI-powered healthcare intelligence platform**, owning system architecture, AI workflow orchestration, backend development, and cross-functional collaboration from design through production deployment.
- Designed and developed scalable **backend microservices and RESTful APIs using Go (Golang)**, implementing concurrent services, secure integrations, and modular architectures to support high-performance healthcare workflows and AI-powered applications.
- Architected end-to-end **Generative AI workflows** using **AWS Bedrock, Mistral LLMs, Retrieval-Augmented Generation (RAG), OpenSearch, vector embeddings, and semantic search**, enabling intelligent document retrieval and context-aware clinical assistance.
- Owned the complete backend **software lifecycle**, including **API design, code reviews, production deployments, performance optimisation, monitoring, debugging, and continuous feature delivery** using **Docker, Git, Linux, and Agile practices**.
- Environment:** Go (Golang), REST APIs, Microservices, AWS Bedrock, OpenSearch, Mistral LLM, RAG, Docker, Git, Linux, Hasura, PostgreSQL

### Software Developer Intern

06/2023 – 05/2024 | Remote

Misfits

- Developed cross-platform mobile applications using **Flutter and React Native**, building **reusable UI components, integrating RESTful APIs**, and delivering responsive user experiences across **Android and iOS platforms**.
- Designed and implemented backend services using **Java, Spring Boot, and REST APIs**, enabling secure client-server communication, business logic implementation, and seamless integration with cloud-based applications.
- Environment:** Java, Spring Boot, REST APIs, Flutter, React Native, TypeScript, Git

### Backend Developer Intern

08/2022 – 11/2022 | Hyderabad

IBM Summer Internship

- Developed scalable backend applications using **Node.js, Express.js, and MongoDB**, implementing **RESTful APIs, authentication modules, and database operations** for web-based applications.
- Integrated backend services with frontend applications, optimizing **API performance, database queries, and application responsiveness** while following clean and modular coding practices.
- Collaborated in an **Agile development environment** using **Git** for **version control, participating in feature development, debugging, code reviews**, and end-to-end software delivery.
- Environment :** Node.js, Express.js, MongoDB, REST APIs, JavaScript, Git

## SKILLS

### Programming Languages

Go (Golang), Java, Python, SQL, JavaScript, TypeScript

### Backend Technologies

Go, Echo, Spring Boot, REST APIs, Microservices, GraphQL

### Generative AI & Machine Learning

LLMs, LangGraph, LangChain, LangGraph. Natural Language Processing (NLP), Prompt Engineering, LangGraph, Semantic Search, Embeddings, Vector Databases, RAGs

### Databases & DevOps

PostgreSQL, MySQL, MongoDB, Docker, Git, Linux, CI/CD

## PROJECTS

### SafeTrip AI Assistant — AI-Powered Personal Safety Platform 🔗

- Architected an **AI-powered personal safety platform** integrating **LLMs, Retrieval-Augmented Generation (RAG), Mistral-7B, and Google Maps APIs** to deliver intelligent real-time emergency assistance.
- Designed semantic retrieval pipelines combining **OpenSearch, embeddings, and prompt engineering** to enable **context-aware risk analysis** with **sub-2 second AI response latency**.
- Integrated **Whisper Speech-to-Text, Sarvam Voice AI, and LLM-driven autonomous workflows** for intelligent SOS generation and voice-enabled emergency communication.

**MockMate — Distributed Interview Practice Platform** 

- Developed a full-stack **peer-to-peer interview platform** using **React.js**, **Next.js**, **Node.js**, **MongoDB**, and **WebRTC**, implementing **geospatial mentor matching** with **MongoDB 2dsphere** indexing to improve match accuracy by 75%.
- Engineered real-time **video interview sessions** with collaborative **note-taking**, **scheduling workflows**, and **session management**, reducing scheduling friction by 60% and increasing user engagement by 65%.

**CERTIFICATIONS**

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- **AWS Certified Solutions Architect – Associate** — Amazon Web Services, 2023
- **MERN Stack Industrial Internship Certificate** — Ethnus, 2023
- **Workday Financial Management for Business Users** — Workday, 2025

**PUBLICATIONS**

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|-------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Mathematical Modelling on Spread of Fungi on Open Surface</b><br><i>Applications(COMAP) (Feb. 2021) pp.</i>                | 07/02/2021 |
| <b>Robotic Path Planning Using PPO Based Reinforcement Approach</b><br><i>Applied Algorithms (ICAA 2026), Springer Nature</i> | 01/12/2025 |