

Kavita Dubey

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Experience

Software Engineer – Tata Consultancy Services (TCS), Delhi

Jan 2024 – Present

Bharat Pashudhan – National Livestock Management System [Java, Spring Boot, Postgres , Microservices , AWS]

- **Developed and maintained** scalable Spring Boot enterprise application for the Government of India, serving approx 1M users nationwide under the Bharat Pashudhan initiative.
- **Built and optimized** high-throughput **RESTful APIs** for livestock statistics, reducing response time by 30% through efficient data modeling and query optimization.
- **Enhanced existing** API functionality and **implemented new** endpoints based on evolving government requirements and policy changes.
- Collaborated with **DevOps team through Git-based** deployment pipeline, ensuring seamless integration of backend services with frontend components.

Document Chatbot : [RAG - LLMs, AWS, Docker, Python]

- Developed a **RAG-powered chatbot**, using AWS Bedrock and Spring Boot, reducing information retrieval time by 90%.
- Built REST-based document ingestion pipeline for PDFs, TXTs, DOCXs for embedding generation and indexing in **Pinecone Vector DB**.
- Implemented **DynamoDB-based** session management for secure chat history storage.
- Integrated **Java backend with React frontend** via RESTful APIs for real-time document querying.

SpeakQL - NL2SQL Chatbot : [Generative AI, Java, Spring Boot, MySQL]

- Developed an **AI-powered conversational interface** converting natural language to SQL queries, enabling business users to extract insights from a **750K+ record MySQL database**.
- Built with Spring Boot microservices and **integrated LLM APIs, processing 2,800+ monthly queries** and reducing data retrieval **time by 95%** for non-technical stakeholders.
- Fine-tuned using **prompt engineering** to deliver accurate, timely, and efficient responses for complex data retrieval.

Skills

Programming: Java, Python, JavaScript, SQL

Frameworks: Spring Boot, Hibernate/JPA, ReactJS, LangChain, Hugging Face

Databases: MySQL, PostgreSQL, DynamoDB, Pinecone (Vector DB)

AI & ML: Generative AI, LLMs, Retrieval-Augmented Generation (RAG)

Cloud & DevOps: AWS (Bedrock, S3), Docker, Git, CI/CD (GitHub Actions)

Awards and Recognition: Best Team Award , On the spot Award

Projects

Bookstore Inventory System [Java, Spring Boot, MySQL]

- Built RESTful APIs using Spring Boot for managing book records (add, update, delete, view).
- Integrated with MySQL for persistent data storage and efficient CRUD operations.
- Followed MVC architecture for clean code structure and maintainability.

Insight – Hotel Review Microservices [Spring Boot, MySQL, Microservices, Spring Cloud]

- Designed a microservices architecture with Eureka, API Gateway, and Config Server.
- Developed independent services for hotels, users, and ratings using Spring Boot and MySQL.
- Delivered and tested REST APIs, enhancing system modularity and scalability.

Education

Galgotias University, Noida, M.C.A. in Computer Science, **8.8 CGPA**

August 2023

Jagran Institute, Kanpur, B.C.A. in Computer Science, **7 CGPA**

August 2021