

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