

ADITYA BHARDE

Backend Developer

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PROFESSIONAL SUMMARY

Computer Science Engineer with hands-on experience building scalable distributed systems using Java, Spring Boot, Kafka, Docker, and Kubernetes. Experienced in AI/ML-integrated backends and cloud infrastructure. Strong foundations in DSA, DBMS, OS, and System Design with a focus on high-performance, production-grade architecture.

EDUCATION

Ramdeobaba University

B.Tech in Computer Science and Engineering / CGPA: 9.3/10

Nagpur, Maharashtra

2024 – 2028

- **Relevant Coursework:** Data Structures & Algorithms, DBMS, Operating Systems, Computer Networks, System Design

TECHNICAL SKILLS

Languages: Java, Python, SQL

Backend & Frameworks: Spring Boot, FastAPI, REST APIs, Microservices, JPA/Hibernate

Distributed Systems: Apache Kafka, Event-Driven Architecture, Asynchronous Communication

AI/ML: ResNet50, Vector Embeddings, Semantic Search, pgvector

Databases: PostgreSQL, MySQL

DevOps & Tools: Docker, Kubernetes, GCP (Compute Engine, Cloud SDK), Git, Maven

Core CS: Data Structures & Algorithms, Operating Systems, DBMS, Object-Oriented Design, System Design

PROJECTS

Distributed Real-Time Trading Platform | *Java, Spring Boot, Kafka, Docker, Kubernetes*

- Designed and developed a distributed trading platform using microservices architecture with independently deployable backend services.
- Implemented asynchronous Kafka-based communication to decouple order ingestion and matching workflows for improved scalability and fault isolation.
- Engineered a low-latency matching engine using in-memory priority queue-based order books for efficient buy/sell order execution.
- Containerized backend services using Docker and orchestrated deployments with Kubernetes to support scalability and service isolation.
- Built REST APIs using Spring Boot and JPA/Hibernate for order management and event processing.

github.com/AdityaBharde/distributed-trading-platform

Vision Search Engine | *Java, Spring Boot, Python, FastAPI, PostgreSQL (pgvector)*

- Designed a scalable two-service architecture with independently deployable Spring Boot and FastAPI services.
- Integrated PostgreSQL with pgvector for cosine similarity-based image retrieval and semantic search workflows.
- Integrated ResNet50-based ML pipeline for vector embedding generation, enabling semantic image similarity search via cosine distance in PostgreSQL pgvector.
- Built REST APIs for image upload, metadata management, and backend search processing.

github.com/AdityaBharde/vision-search-engine

ACHIEVEMENTS

Solved 300+ algorithmic problems on LeetCode focusing on graphs, trees, recursion, dynamic programming, and greedy algorithms.

Designed and deployed multi-service systems on GCP integrating REST, event-driven, and ML-based search pipelines.