

Bitezzy: A Recipe Recommendation Platform Powered by Vector Database

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Abstract

Bitezzy is an AI-driven culinary platform designed for intelligent recipe discovery, personalized recommendations, and subscription-based content access. The system combines a ReactJS front-end, a NodeJS backend, and MongoDB for persistent storage with an asynchronous processing pipeline and a vector database Qdrant for semantic retrieval. Recipe data and user interaction signals are converted into embeddings and indexed for similarity search, enabling recommendation beyond keyword matching. The platform supports recipe ingestion, update and delete synchronization, real-time query routing, and recipe-based as well as interaction-based recommendations. By combining semantic search with modular backend services, Bitezzy provides a scalable and responsive architecture for modern recipe recommendation systems.

Keywords

Recipe recommendation, vector database, semantic search, embeddings, recommendation system, web application.