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GitHub

PROJECTS

Distributed Graph Stream Summarization Using Multi-dimensional Hash Functions / *Math, Python, Apache Spark, Socket Programming*

- Created a distributed system that compresses high-volume graph streams using **multi-dimensional hashing techniques**, allowing for **near-constant time access** for real-time analytics over compact sketch structures.
- Integrated this approach with **Apache Spark** using batch-wise processing and streaming DataFrames to support **scalable, low-latency summarization** of large, dynamic graphs with low latency and high update throughput.
- Built a **client-server architecture** that manages distributed sketches and supports **real-time queries such as edge-weight estimation** over streaming graph data.

Semantic Resume Screening System using Retrieval-Augmented Generation (RAG) / *Python, LangChain, ChromaDB, React.js*

- Developed an AI-powered resume screening system using **Retrieval-Augmented Generation** to retrieve semantically relevant job description chunks from vector database and pass them, along with resume text, to the LLM for **generating human-like match/mismatch feedback** and improve evaluation.
- Generated structured LLM output (skills, responsibilities, etc.) from JDs and computed **semantic scores** of resumes using **cosine similarity**.
- Integrated **SentenceTransformer (all-MiniLM-L6-v2)** embeddings with **ChromaDB** for **semantic search and context retrieval** from job descriptions.

PlanPro – AI-powered Study Plan Generator / *React.js, Node.js, Express.js, MongoDB, Python, Groq API, FullCalendar.js*

- Created an intelligent task planner that uses **Groq API** to generate personalized study tasks based on user-defined academic goals.
- Implemented dynamic **task scheduling and prioritization**, displaying tasks on a calendar with color-coded urgency levels (High, Medium, Low) using **FullCalendar.js**.
- Enabled task completion tracking and real-time updates through a **React frontend** and a **RESTful Node.js backend**. Integrated secure **user authentication** using **JWT tokens** and managed user-specific data with **MongoDB**.

EDUCATION

PES University, BTech in Computer Science Engineering — 2022 - 2026

- Coursework: Software Engineering, Data Structures and Algorithms, Operating Systems, Database Management, Machine Learning, Computer Networks, Cloud Computing, Generative AI, Deep Learning, Compiler Design, Object Oriented Analysis

SKILLS

Programming Languages: Python, C/C++, Java, SQL, JavaScript
AI & NLP: Hugging Face Transformers, LangChain, SentenceTransformers, Groq API
Machine Learning: Scikit-learn, NumPy, Pandas, PyTorch
Information Retrieval: Vector Search (FAISS, ChromaDB), Semantic Similarity, Cosine Similarity
Web Development: React.js, Node.js, Express.js, HTML, CSS, Tailwind CSS

CERTIFICATIONS

IBM Generative AI Engineering Professional Certificate (IBM via Coursera) — In progress
Core skills: Generative AI, Prompt Engineering, Fine-tuning Transformers (LoRA, QLoRA), Hugging Face, LangChain, NLP, Deep Learning