KETHAVATH KARTHEEK

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PROFILE

• Motivated computer science student passionate about full-stack development, applied AI, and building scalable, data-driven products. Strong understanding of LLMs and Retrieval-Augmented Generation (RAG) systems with hands-on experience in cloud deployment and backend engineering. Competitive programmer skilled in Python, Java, and JavaScript with a solid foundation in CS fundamentals.

• Keshav Memorial Institute of Technology

2022-2026

B.Tech in Computer Science and Engineering (AI-ML), CGPA: 7.45

Hyderabad, Telangana

Narayana Junior College

2020-2022

Intermediate (Physics, Chemistry, Maths), Percentage: 92.3

Hyderabad, Telangana

• Kendriya Vidyalaya Sangathan(CBSE)

2020

Miryalaguda, Telangana

Secondary Education, Percentage: 88.4

SKILLS

Languages: Python, Java, JavaScript, C++

Frameworks: Node.js, Flask, Express.js

Tools & Concepts: REST APIs, WebSockets, Git, Zustand, Postman

ML/AI: LangChain, Gemini API, RAG systems, Prompt Engineering

PROJECTS

Smart PDF Chat - (LangChain | FAISS | Python | MongoDB | Streamlit)

Source Code

Demo

- Built a Retrieval-Augmented Generation (RAG) chatbot that enables users to query uploaded PDFs using natural language.
- Integrated **LangChain** with **FAISS** vector store and **Gemini 1.5 Flash** for real-time semantic search and context-based answer generation.
- Parsed and split large PDFs into text chunks, embedded them using Google Generative AI embeddings, and stored vectors locally for low-latency retrieval.
- Designed a dynamic Streamlit UI with session memory, chat interface, and conversation history download feature.
- Deployed on cloud using Streamlit, optimized for low-latency inference, and designed for real-time, multi-file interaction

- Created a full-stack AI interview platform simulating real-time conversations using voice input/output.
- Developed Python-based backend services for question generation, answer scoring, and feedback delivery utilizing the Gemini API.
- Managed users, interviews, and dynamic feedback with question-level analytics using MongoDB.
- Designed RESTful APIs to support real-time, multi-step user flows from interview initiation to personalized feedback.

EAMCET College Predictor . (Python | Flask | Pandas | HTML/CSS) Source Code Demo

- Developed a Python-Flask web application to predict suitable colleges based on user rank and category using TS EAMCET data.
- Parsed large CSV datasets with Pandas for efficient college prediction logic and dynamic filtering.
- Built a Flask backend with server-rendered templates, deployed on a lightweight stack.
- Designed a clean, intuitive UI ensuring smooth user interaction and data-driven responses.

TECHNICAL ACTIVITIES

- Developed a Video Summarizer Web App at CBIT Hacktoberfest Hackathon 2023, organized by CBIT Open Source Community; generated concise summaries from YouTube videos using transcript analysis.
- Achieved Top 26% on LeetCode by consistently solving algorithmic and data structure challenges, demonstrating strong problem-solving skills.
- **Finalist at HASCKAVVY Hackathon** hosted by MGIT College; participated in a national-level competition, building and pitching innovative tech solutions under time constraints