**Name: Karthik reddy Kanjula**
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**Status (junior, senior, graduated): Graduated**
**Link to Project Github:**
**https://gitfront.io/r/user-1352231/vjWFoqKe7tGs/metaphor-healthcare-application/**

**Project Name:** Healthcare Resources Application

## 1. Brief Explanation of Project:

This application provides a one-stop solution for healthcare resources using the Metaphor and GPT-3 APIs. This project is a comprehensive healthcare resource aggregator empowered by cutting-edge technologies. It seamlessly integrates Metaphor API, which provides advanced neural search capabilities, with the power of the LLM OpenAI API. The application offers three main functionalities:

- Best Hospital Finder: Users can search for top hospitals based on specific diseases and location criteria.
- Where to Buy Drugs: It helps users locate drug stores that carry specific medications within their desired region.
- Latest Medical Information: Users can access up-to-date medical information on various topics, with content summaries generated through AI, along with proper citations for further reading.

The project utilizes Gradio for the user-friendly interface, making it a valuable tool for accessing critical healthcare information efficiently.

## 2. How you Built it: I started by initializing the Metaphor and OpenAI APIs to enable semantic search and text summarization capabilities. I then defined three main functions - hospital search, drug search, and latest info search - that construct queries using the Metaphor API based on user inputs as simple keywords but in the backend I had a formatted prompt that will be filled in with the user keywords, every prompt is different in each functionality, designed properly to query the best needs for user. The results are formatted as clickable hyperlinks. For the latest info tab, I also summarized the content using OpenAI's conversational AI and citations. Finally, I built a UI with Gradio using a tabbed interface to allow searching across the three domains. Each tab provides examples and interfaces with the backend functions through

the Gradio Interface components. Overall, this leverages AI search and NLP APIs to deliver an intelligent healthcare search application. I completely used python to build this project and tested with unit testing.

**3. Challenges/Feedback on the API:** I started using the Metaphor API in less than a minute, and I would like to recommend that the capabilities that are included in the search as well, such as site filter and Timeline functionality, be enabled on the API; aside from these, the Autoprompt feature is a game changer.

## 4. Why you're interested in Metaphor :)

Dear Metaphor team,

My name is Karthik reddy Kanjula, and I recently completed my Master's degree in Computer Science at West Chester University. I am very interested in joining Metaphor as a Research Engineer.

I am passionate about leveraging AI to be fully semantic search, Wow that's a great idea! and have experience in Python, PyTorch, TensorFlow, OpenCV, and frameworks for developing innovative deep learning systems. Here are some highlights of my qualifications:

- Received acceptance for the paper "An Edge Internet of Things Framework for Machine Learning based SkinCancer Detection Models" at ICMLA 2023
- Developed web application with GPT-3.5 API and Langchain for natural language search on documents
- Published research on applying neural networks and signal processing to medical EEG data
- Created computer vision pipelines for tasks like real-time object detection and image classification

I am particularly drawn to Metaphor's mission to revolutionize how knowledge is accessed through AI-powered search. I would be excited to collaborate with your team and rapidly prototype new techniques that push the boundaries of what is possible. I would welcome the opportunity to discuss how I can contribute to Metaphor's goal of reinventing search. Thank you for your consideration.

Warm regards,

Karthik
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