

**Instituto Tecnológico y de Estudios
Superiores de Monterrey**
Campus Monterrey

Inteligencia artificial avanzada para la ciencia de datos II
TC3007C.501

Entrega final NLP



Streamlit

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Resumen del proyecto

El proyecto, titulado "Whisper ChatGPT Audio" es una aplicación web basada en Streamlit diseñada para transcribir y resumir contenido de audio utilizando el modelo de lenguaje GPT-3.5 de OpenAI y el modelo de Reconocimiento Automático del Habla (ASR, por sus siglas en inglés) Whisper. El objetivo principal es proporcionar a los usuarios una herramienta conveniente para cargar archivos de audio, obtener transcripciones y recibir versiones resumidas en texto del contenido de audio.

Análisis del Código

1. Manipulación de Archivos:

El código utiliza la biblioteca Streamlit para crear una interfaz fácil de usar. Proporciona un widget de carga de archivos (`st.file_uploader`) que permite a los usuarios cargar archivos de audio. El archivo cargado se guarda en el directorio de trabajo actual.

2. Transcripción y Resumen:

La biblioteca whisper se utiliza para cargar el modelo de ASR Whisper, facilitando la transcripción de archivos de audio. El texto transcrito se procesa luego con el modelo GPT-3.5 Turbo de OpenAI para generar una versión resumida del contenido.

3. Bibliotecas y Modelos:

- OpenAI GPT-3.5 Turbo:
 - Propósito: GPT-3.5 Turbo es un modelo de lenguaje potente capaz de comprender y generar lenguaje natural. Se utiliza para generar resúmenes basados en la transcripción de audio.
 - Uso: La biblioteca `openai` está integrada para interactuar con la API de OpenAI GPT-3.5 Turbo para tareas de procesamiento de lenguaje.
- Whisper ASR:
 - Propósito: La biblioteca whisper se utiliza para cargar el modelo ASR Whisper. El ASR es crucial para convertir el lenguaje hablado en archivos de audio a forma textual.
 - Uso: La función `transcribe_audio` utiliza el modelo ASR Whisper para transcribir el archivo de audio, permitiendo un procesamiento adicional por el modelo de lenguaje.

4. Interacción con el Usuario:

El *framework* Streamlit se elige por su simplicidad en la construcción de aplicaciones web con un código mínimo en Python. Proporciona una forma intuitiva de interactuar con la aplicación, con funciones como cargadores de archivos, indicadores de carga y visualización de contenido.

Objetivos y Logros del Proyecto

- Interfaz Fácil de Usar:

La aplicación Streamlit proporciona una interfaz accesible para que los usuarios carguen archivos de audio fácilmente.

- **Transcripción y Resumen:**

La combinación de Whisper ASR y GPT-3.5 Turbo permite una transcripción y resumen precisos del contenido de audio.

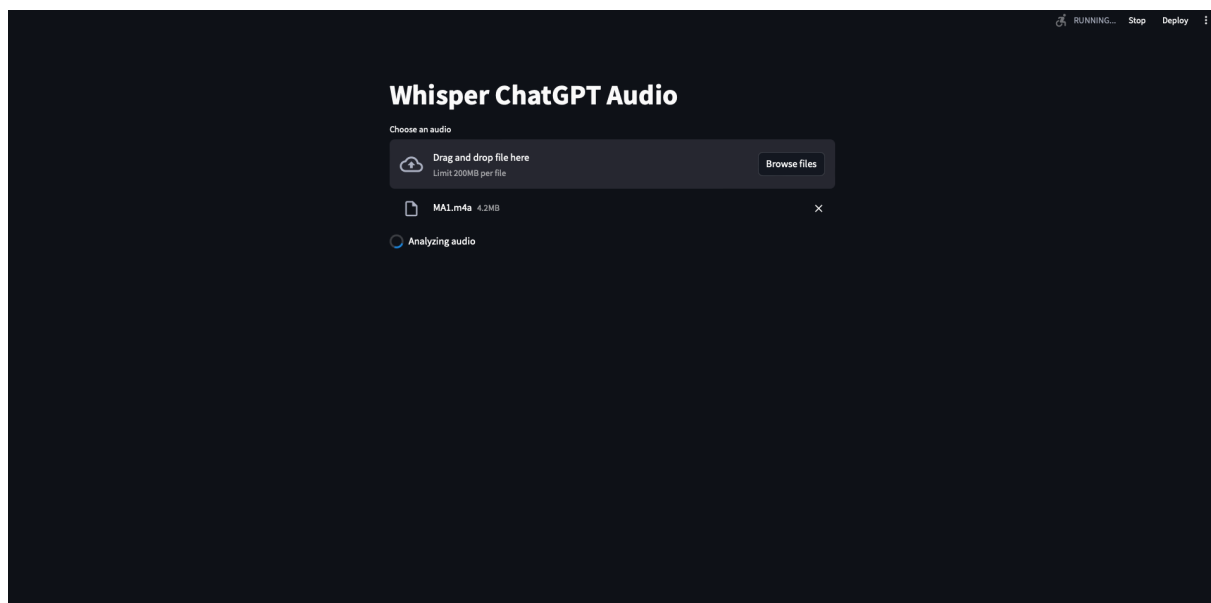
- **Manipulación y Limpieza de Archivos:**

El proyecto maneja eficientemente la carga de archivos, realiza el procesamiento necesario y limpia los archivos temporales después de su uso.

- **Integración de Modelos de Vanguardia:**

El proyecto muestra la integración de modelos de lenguaje de última generación (GPT-3.5 Turbo) y modelos ASR (Whisper) para lograr capacidades avanzadas de procesamiento de audio.

Implementación



Whisper ChatGPT Audio

Choose an audio



Drag and drop file here
Limit 200MB per file

Browse files



MA1.m4a 4.2MB



Transcription

Especially, and I would even argue in the last four weeks, you really can't build fitness for the Iron Man distance. But you can ruin your fitness for the Iron Man distance, especially within the last two to three weeks. So it takes your body to adapt to a full load, a full Iron Man load. It takes four to six weeks for your body to fully adapt to it. For you to go through the full depression cycle all the way through the compensation cycle and come back to the place where you're ready to race again. So if you take your body and you're in that super compensation phase and you start training in that which is going to be in these last two weeks which you're in right now. And you add load to it and drop down again. You're going to lose everything that you gained from those big efforts that you did in the four to six weeks out from your race. Okay, so you have to give your body time to rest. You need to let your body fully recover from those efforts and even get stronger. So you can keep the sword sharp by doing short quick efforts. You can get out the door to work out some of your whatever your issues are. They're mental. I need to go out and do something. Fine. Zone one, zone two, easy, 30, 45 minutes to at least open the body up and remind yourself what you're going to be doing. Those things are fine. Weight training in the last two to four weeks. Try it out. You know that? No weight training. It does not hold on in a program. In the last two weeks for sure. I recommend, usually even in the last four weeks unless you've been super consistent with it all the way through your all the way through your training. Like not even squat or push up. Stop today. How about the volume? I mean, I look at my schedule. It's like a 50% of my peak. You think it should be appropriate. You want to be going from your peak volume. You should be cutting back to like 75% four weeks out, two thirds, three weeks out, and then two weeks out. You should be almost half. Half of your volume. Yeah. And then in the last week, it really depends. Everybody's different. Everybody tapers

tips for the running portion nutrition? Don't give up. Just, yeah, just keep eating, right? I mean, it sounds like you bombed. I think that's, that's, that's, that's what happened. Uh, yeah, it wasn't hot, it wasn't hot. It wasn't really hot. It's just my body, I mean, I don't want to eat. That's, that's a part, right? Yeah, there's an e-app, right? You get to the, your stomach is saturated, salt, a lot of times. I don't know, maybe that's what Mike was headed with his, his question. But salt, a lot of times is, um, one of the things that you need to have more of, if you don't have proper balances salt, and your stomach, you're not able to absorb the carbohydrates. So, even if you keep slamming gels, you're, you're, you're, you end up with this like lead weight in your stomach because you aren't able to, the stomach's not able to process it because it doesn't have enough salt in your stomach cavity to absorb the liquid. And you really need dialent, the right amount for you, because there's a huge range on what people need for salt. There's really heavy salt sweaters and there's light, and you can do too much salt. And you have this like really similar light cramping from too much salt, so you really need a dial in in your training.

Summary

- It takes 4 to 6 weeks for the body to fully adapt to the Iron Man distance.
- Training during the last 2 weeks can ruin the fitness gained in the previous weeks.
- Rest and recovery are important during this phase.
- Short, quick efforts to open up the body are recommended.
- Weight training should be avoided in the last 2-4 weeks, unless consistently practiced throughout training.
- Volume should be gradually reduced leading up to the race.
- Tapering strategies vary for each individual.
- Practice nutrition strategies during training to find what works best.
- Redundancies in nutrition should be considered for race day.
- Salt intake is important to ensure proper absorption of carbohydrates.
- Finding the right balance of salt is crucial as individual needs vary.