



**Tecnológico
de Monterrey**

Instituto Tecnológico y de Estudios Superiores de Monterrey

NLP EVIDENCIA

Alumno:

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Inteligencia artificial avanzada para la ciencia de datos II (Gpo 501)

Descripción

En este proyecto, se llevó a cabo el desarrollo de un sistema de reconocimiento de voz utilizando ChatGPT Whisper para transcripción y resumen de audio. Además, se integró un componente de análisis de sentimiento mediante Streamlit. Aquí se describen los pasos realizados:

Pasos para el Análisis de Sentimiento con ChatGPT en Streamlit:

Instalación de Dependencias:

Se utilizó el comando `pip install openai==0.28` para instalar la versión específica de la biblioteca OpenAI. Streamlit se instaló mediante el comando `pip install streamlit`.

Configuración de Clave API de OpenAI:

Se proporcionó la clave de API de OpenAI mediante `openai.api_key = "su_clave"` para autenticar las solicitudes a la API.

Desarrollo del Script en Streamlit:

Se creó un script en Python utilizando Streamlit para la interfaz de usuario. Se implementó un campo de entrada de texto para que el usuario ingresara una oración. Se estableció un prompt para ChatGPT basado en la oración ingresada.

Llamada a la API de ChatGPT:

Al presionar un botón en la interfaz, se realizó una llamada a la API de OpenAI para obtener la predicción de sentimiento. Se utilizó el modelo `text-davinci-003` con parámetros específicos.

Visualización de Resultados:

Se mostró el resultado del análisis de sentimiento en la interfaz de Streamlit.

Pasos para el Reconocimiento de Voz con ChatGPT Whisper:

Clonación del Repositorio de Whisper-ChatGPTAudio:

Se clonó el repositorio desde el enlace proporcionado:

<https://github.com/stanghong/Whisper-ChatGPTAudio.git>.

Instalación de Dependencias para Whisper:

Se instaló `ffmpeg` con el comando `brew install ffmpeg`. Se instaló Whisper utilizando el comando `pip install git+https://github.com/openai/whisper.git`.

Instalación de `mplayer` y Configuración:

Se instaló `mplayer` para la reproducción de audio. Se configuró Homebrew y se instaló `mplayer`.

Verificación del Contenido del Archivo de Audio:

Se utilizó el comando `mplayer MA1.m4a` para verificar el contenido del archivo de audio.

Ejecución del Script de Transcripción y Resumen:

Se accedió al directorio `Whisper-ChatGPT-Audio`. Se ejecutó el script `python whisper_summarize.py` para transcribir y resumir el audio utilizando ChatGPT Whisper.

Integración de ChatGPT Whisper y Análisis de Sentimiento:

Configuración de Clave API y Modelo para ChatGPT Whisper:

Se estableció la clave de API de OpenAI para ChatGPT Whisper. Se cargó el modelo base de Whisper.

Transcripción de Audio con Whisper:

Se utilizó la función `transcribe_audio` para transcribir el archivo de audio (MA1.m4a) utilizando el modelo Whisper.

Conversación con ChatGPT para Resumen Personalizado:

Se creó una conversación simulada con un sistema y el usuario utilizando OpenAI ChatGPT.

La transcripción del audio se utilizó como entrada para obtener un resumen personalizado.

Visualización de Resultados:

Se imprimió la transcripción y el resumen en la consola para verificar los resultados obtenidos de la combinación de Whisper y ChatGPT.

Screenshots

Key: `sk-Xn63HfIRoU93isigut0KT3B1bkFJTcS4ANCPgwGBbVaoJqJa`

API keys

Your secret API keys are listed below. Please note that we do not display your secret API keys again after you generate them.

Do not share your API key with others, or expose it in the browser or other client-side code. In order to protect the security of your account, OpenAI may also automatically disable any API key that we've found has leaked publicly.

NAME	KEY	CREATED	LAST USED ⓘ
GPTKEY	sk-...JqJa	24 nov 2023	Never  

+ Create new secret key

Figura 1

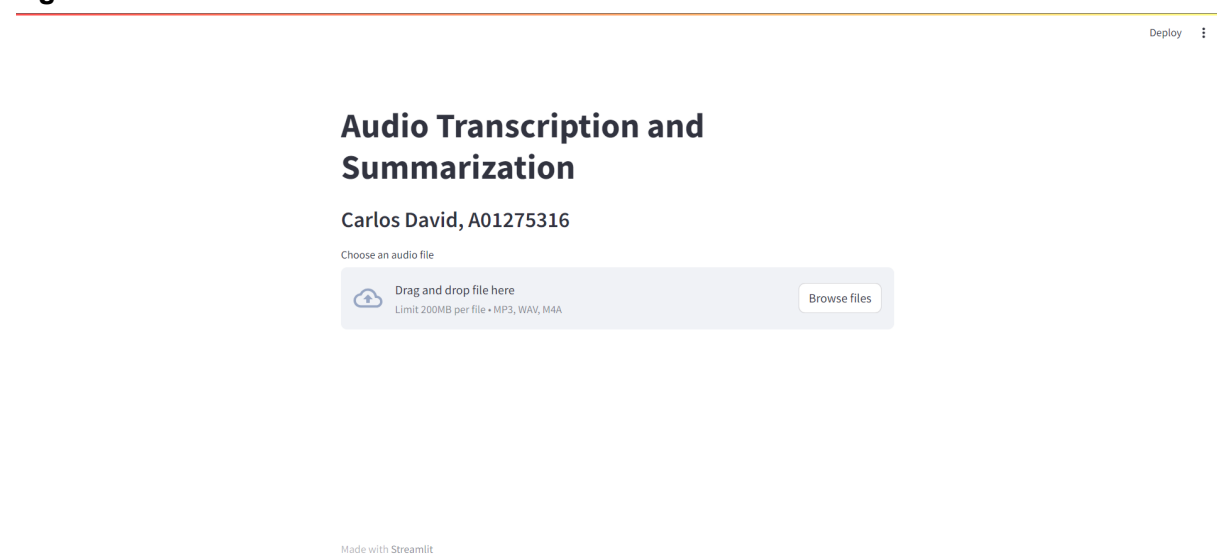


Figura 2

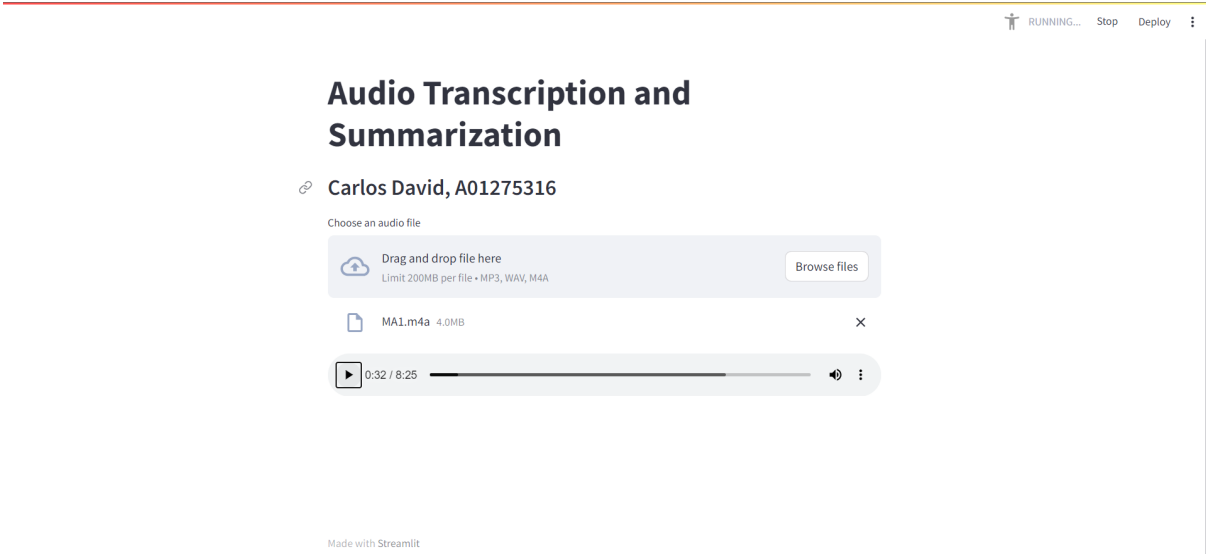
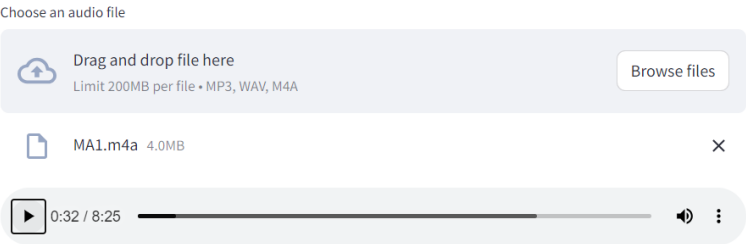


Figura 3

Deploy

Audio Transcription and Summarization

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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

Figura 4

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 differently. And so you're probably not going to get it right on your first Iron Man taper. That's okay. Right? I mean, you probably didn't get it right when you did your first taper to an Olympic distance either. I'll point that one out. Yeah. Yeah. Each time you do it, you do something a little bit different. Yeah. And how about the nutrition? I mean, I know people, that's a big thing for Iron Man. I know people train perfectly

Figura 5

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:

- Building fitness for an Iron Man distance is difficult, but it is easy to ruin your fitness in the last two to three weeks.
- It takes four to six weeks for the body to fully adapt to a full Iron Man load.
- Training during the super compensation phase can cause you to lose the gains made in the four to six weeks leading up to the race.
- It is important to give your body time to rest and recover before the race.
- Short, quick workouts in zone one or two are fine during the taper period.
- Weight training should be limited in the last two to four weeks, unless consistent throughout training.
- Volume should be gradually reduced to 75% four weeks out, two thirds three weeks out, and almost half two weeks out.
- Tapering methods vary for each individual, so it may take a few tries to get it right.
- Adequate nutrition is important for Iron Man races.
- Practice nutrition strategies during training to find what works for you.
- Redundancies in nutrition should be prepared in case of dropped or lost items during the race.
- Salt intake is important for proper carbohydrate absorption in the stomach.
- Finding the right amount of salt for your body is essential, as everyone's needs vary.