



Instituto Tecnológico y de Estudios Superior de Monterrey

Inteligencia Artificial Avanzada para la Ciencia de Datos II - Grupo 501

Módulo 3: Procesamiento de Lenguaje Natural (NLP)

Profesor: Juan Arturo Nolasco Flores

Actividad final:

Interfaz en Streamlit con reconocimiento de voz

Estudiante: Paola Sofia Reyes Mancheno

Matrícula: A00831314

Monterrey, N.L., a 23 de noviembre de 2023

En esta entrega, se realizó una interfaz con la ayuda de StreamLit la cual puede realizar transcripciones y el resumen de un audio. Esto se realiza a través de reconocimiento de voz, el mismo que se obtuvo a través de la conexión a una API de ChatGPT. Para esto, se comenzó clonando un repositorio de GitHub, de un proyecto previamente creado, el cual escucha un audio de 8 minutos, y lo transcribe y resume en bullet points. Para esto, también se debió obtener previamente créditos en chat GPT y una clave secreta, la cual permite acceder a estos créditos y que la API de Whisper funcione.

En la primera imagen, se puede observar como el reconocimiento de voz funciona correctamente, al imprimir el resumen del audio utilizado. Posterior a esto, se procedió a crear la interfaz con la librería de Streamlit, la cual permite realizar páginas web locales en lenguaje Python. Primero, se sube el archivo a reconocer, el cual puede escucharse completamente en la interfaz, para el que el usuario pueda corroborar los resultados. Posteriormente, se hace click en la palabra Transcripción, para que el programa presente la misma como se ve en las imágenes. Finalmente, existe el botón de Resumir, el cual presenta en bullet points las ideas principales del audio escuchado.

```
(base) C:\Users\sofir\Whisper-ChatGPT-Audio>python whisper_summarize.py
C:\Users\sofir\anaconda3\Lib\site-packages\whisper\transcribe.py:115: UserWarning: FP16 is not supported on CPU; using FP32 instead
  warnings.warn("FP16 is not supported on CPU; using FP32 instead")
Key points:
- Building fitness for the Iron Man distance takes time, at least 4-6 weeks for the body to fully adapt.
- Training in the last two weeks can ruin fitness gains and should be avoided.
- Rest and recovery are important during this time to allow the body to fully recover and even get stronger.
- Short, light workouts can be done during this period to keep the body active.
- Weight training should be avoided in the last two weeks, unless it has been consistently done throughout training.
- Volume of training should be gradually reduced during the tapering period, with about 50% of peak volume two weeks out from the race.
- Tapering can be individualized and may require trial and error to find what works best for each person.
- Nutrition is important and should be practiced during training to avoid GI issues on race day.
- Redundancies in nutrition should be planned for the race, as unexpected circumstances can arise.
- Proper salt balance is crucial for proper carbohydrate absorption, and individual needs may vary.

Note: The conversation is about preparing for an Iron Man race, focusing on training, tapering, and nutrition.
```

Audio Summarizer with ChatGPT




Upload an audio file (e.g., .m4a)



Drag and drop file here

Limit 200MB per file • MP3, WAV, M4A

Browse files

▶ 2:22 / 8:25   

Transcripción:

Especialmente, 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

because you cannot carry bottle with you during training. I mean, you know, race, yes. Because they'll provide the drink. So I think I'm sure on that and you body just, everything, I think, is kind of slow, or right? You're pushing your body to an limit, and then finally, you just shut down. I don't know. Is there any 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, 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.

Resumen

Resumen

Summary:

- Building fitness for the Iron Man distance is difficult and takes time.
- It is important to allow your body time to rest and recover before the race.
- Weight training should be avoided in the last two to four weeks unless it has been consistent throughout training.
- Volume should be gradually reduced in the weeks leading up to the race.
- Each individual's tapering process is different and may require adjustment.
- Practicing nutrition during training is crucial to find what works best for you.
- Redundancies should be built into your nutrition plan to account for unforeseen issues during the race.
- Salt balance is important for proper carbohydrate absorption and avoiding stomach issues.
- Finding the right amount of salt for your body is key and needs to be dialed in during training.