

LLM Engineering

MASTER AI & LARGE LANGUAGE MODELS





WEEK 3 DAY 5

Today we build confidence

What you can now do

- Confidently code with Frontier Models
 - Build a multi-modal AI Assistant with Tools
 - Use HuggingFace pipelines, tokenizers and models
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After today you will be able to

- Confidently work with tokenizers and models
- Run inference on open-source models
- Implement an LLM solution combining Frontier and open-source models

Create a solution that makes meeting minutes

Take an audio recording of a meeting, and generate minutes and actions



Use a Frontier model to convert the
audio to text



Use the open source model to
generate minutes



Stream back results and show in
Markdown

THE RESULTS

A solution combining Frontier and open-source

Minutes of the Denver City Council Meeting

Date: Monday, October 9th **Location:** Denver City Council Chambers **Attendees:** Council Members: Lopez, Clark, Flynn, Gilmour, Cashman, Kenneche, Lopez, New, Ortega, Sussman, and President

Summary: The meeting began with the Pledge of Allegiance led by Councilman Lopez. The Council then moved on to approve the minutes of the previous meeting, followed by Council announcements, presentations, and communications. The highlight of the meeting was the adoption of Proclamation 1127, Series of 2017, an observance of the second annual Indigenous Peoples Day in the City and County of Denver.

Discussion Points:

- Councilman Clark announced the first-ever Halloween parade in the Lucky District 7, to be held on October 21st at 6 o'clock p.m. on Broadway.
- Councilman Lopez introduced Proclamation 1127, Series of 2017, an observance of the second annual Indigenous Peoples Day in the City and County of Denver.
- Councilwoman Kinneche discussed the importance of Indigenous Peoples Day, highlighting the contributions of Indigenous people to the city's history, culture, and present.

Takeaways:

- The Council acknowledged the importance of Indigenous Peoples Day as a celebration of inclusivity and respect for all cultures.
- The Council recognized the contributions of Indigenous people to the city's history, culture, and present.
- The Council emphasized the need to address critical issues such as poverty, lack of access to services, and environmental protection.

Action Items:

- **Owner:** Councilman Lopez
 - **Action:** Adopt Proclamation 1127, Series of 2017, an observance of the second annual Indigenous Peoples Day in the City and County of Denver.

YOUR CHALLENGE

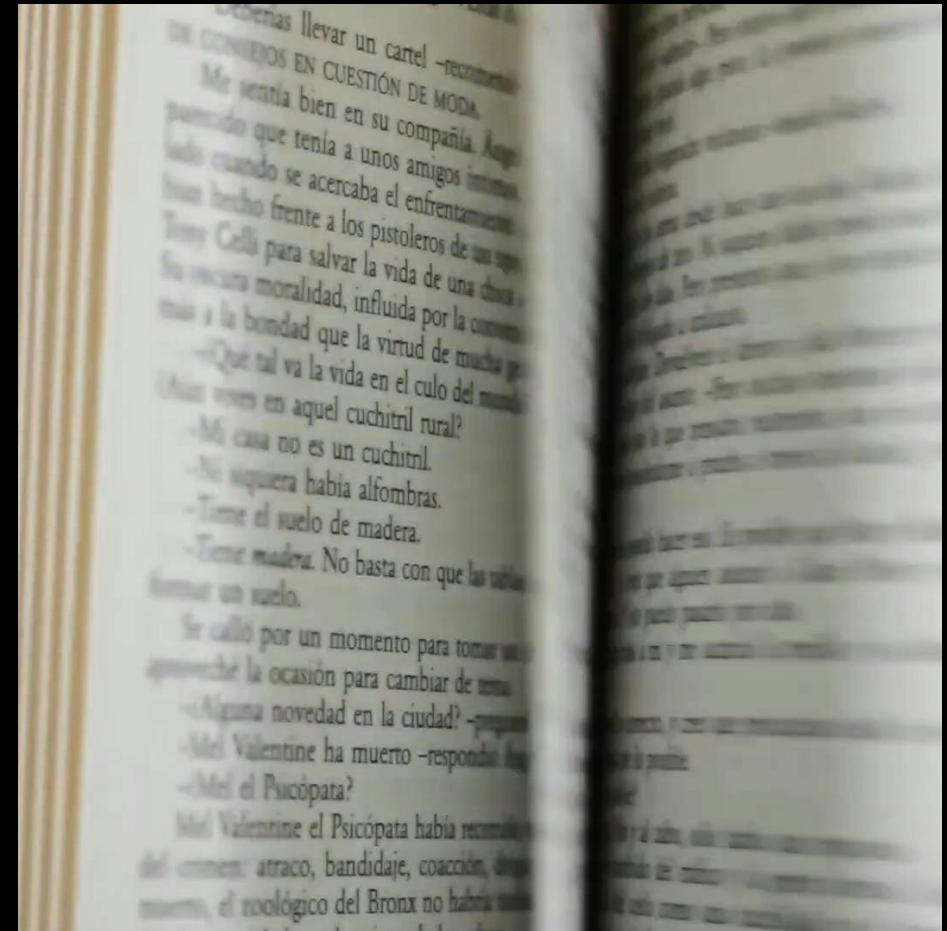
And now - an important business challenge

Generating Synthetic Data

- Write models that can generate datasets
 - Use a variety of models and prompts for diverse outputs
 - Create a Gradio UI for your product
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Why is this useful

Applies to almost any business area - you can use this in your day job and home projects





WEEK 3 COMPLETE

You've acquired pro skills!

What you can now do

- Confidently code with Frontier Models
 - Build a multi-modal AI Assistant with Tools
 - Build an LLM solution combining frontier and open-source models
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After next week you'll be able to:

- Pick the right LLM for the task at hand
- Compare LLMs using Leaderboards and Arenas
- Generate code using Frontier and Open-source models