Breakout Room Reports

Trying Out Transformers

NOTE: You can share your screen in your rooms

Room name
Model(s) tried
Query
How well did it work?

NLP 1
google/tapas-base-finetuned-wtq
Table Based Queries
Worked quickly

dslim-bert-base-NER

Token classification/Entity recognition
Got quite a bit, probably enough to help figure out article emphasis

sshleifer/distilbart-cnn-12-6
Summarization
Seemed successful in winnowing down spoken transcript text to a shorter text that had most of the 'meat'

NLP 2
DistilBERT | sentiment analyzer - worked well, but would be cool if was more precise | i.e., "You're fine, I guess" yields 100% positive sentiment, which is fine because it's binary, but I'd give it a 60% positive sentiment, and have it round up.
bart-large-mnli

DistilBart-MNLI
Zero-Shot Classification
Worked well with 2 classes, less well with 3 classes (*To the person that tried this: try to use a different label rather than "no adverse event". What about ["adverse event", "healthy"] or something like that? You may be able to get even more detail about the type of adverse event by adding specific terms relating to the event. No telling how it will work, but could be interesting!*)

NLP 3
deepset/roberta-base-squad2
Question Answering
Context: Vanderbilt Wikipedia Page
Questions:
1. When was Vanderbilt founded? 0.98
2. From how many countries, are Vanderbiult students from? 0.9
3. What research Institutes are affiliated with the university? 0.013

Audio 2
Wav2Vec2-Base-960h: recorded from browser; did pretty well!

NLP 4
- Bert-base-uncased (fill-mask)
  - Context: "The goal of life is [MASK]"
  - Answers were usual things like happiness, freedom, etc, but also said life
- google/pegasus-xsum (summarization)
  - Context: A big summary paragraph with facts about the Eiffel tower
  - It did give a summary that identified the text as relating to the Eiffel tower, but it was very brief
- Helsinki-NLP/opus-mt-fr-en (translation)
  - Context: Some french song lyrics
  - Pretty good (from a french speaker)!

Computer Vision 1
- Model(s) Tried:
  - Object Detection: Facebook/detr-resnet-50 (Maya, Samantha)
    - Some objects were identified, but not all
    - Low accuracy
  - Vision Transformer: google/vit-base-patch16-224 (Jason)
    - Worked as expected
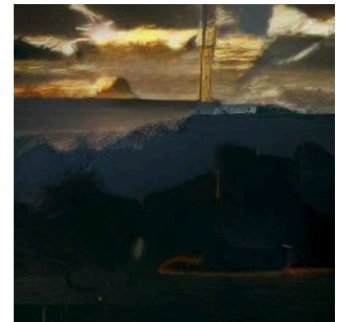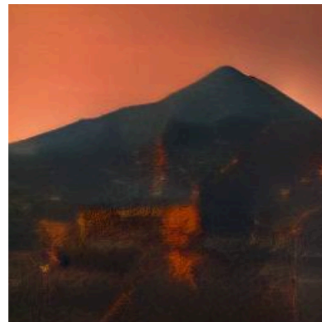 - Object Detection: nielsr/detr-resnet-50 (Miguel)
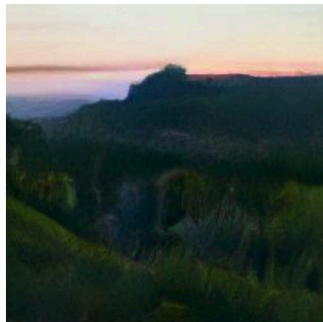 - Text-to-image

DALL·E mini

Generate images from text

What do you want to see?

house on mountain at sunset

house on mountain at sunset

- Shark in very clear water (Maya)
  - Recognized it as a person

Are existing models good enough for your interest/project?

Your name
Project name
If yes, which one?
If no, which is closest?

Day 2

Breakout Exercise 1 (10 minutes)

Find some example datasets for your task using your modality (image, text, etc. Explore the structure of the datasets and how they should be formatted. Explore the information that they contain. Report your findings.

Rooms:

Training from Scratch

Using Feature Extraction (getting hidden states)

Classification

Summarization (now Classification)

Text (or other) Generation

Translation

Multi-modal

Breakout Exercise 2 (15 minutes)

Based on the structure of the data that you have or anticipate to have, explore the documentation to determine what you'll need to do to get it into the HuggingFace Dataset format and/or onto the HuggingFace Hub.

Rooms:

Programmatic Standard Formats 1

Programmatic Standard Formats 2

Low-code standard formats 1

Low-code standard formats 2

Non-standard formats 1

Non-standard formats 2

Multiple configurations 1

Multiple configurations 2

Breakout Exercise 3 (10 minutes)

Explore Datasets functionality. Answer the questions proposed in Notebook 2. What else is interesting?