

Daily Log

Sunday November 11

Continued to fetch transcripts from both the code and the demo site, updating the spreadsheet dataset.

Monday November 11

Experimented with DeepAI Summarization Model here <https://deepai.org/machine-learning-model/summarization>. Returns summaries with around 20 percent of original text. Imported relevant packages locally in Python but ran into some errors with API queries and JSON calls. Research online potential causes in effort to resolve. Also continued to fetch transcripts from both the code and the demo site, updating the spreadsheet dataset.

Wednesday November 13

Experimented with MeaningCloud Summarization API here <https://www.meaningcloud.com/products/automated-summarization>. No Python implementations exist, so worked with raw JSON and XML responses and curl to fetch POST requests. Parameters are simple but sample summaries look decent. Wasn't able to get returned output from API calls, some of which may have not fully went through or completed. Free trial is also limited but researching online potential issues. Also continued to fetch transcripts from both the code and the demo site, updating the spreadsheet dataset.

Timeline

Date	Goal	Met
November 1st	Decide on a text summarization API and start to implement code/API requests on a test TED transcript I have in the dataset and continue to scale dataset in parallel	Yes, decided to initially start with the deepAI and meaningcloud APIs and still continuing to look for others in tandem while also continuing to scale the dataset with transcripts from IBM Watson and the demo site
November 8th	Discuss with Mr. White whether need to go about implementing Mellin and Discrete Cosine Transform or any other audio processing algorithms; checkpoint: have a successful summarization working and determine what next steps are if any issues arise; continue to scale dataset in parallel	No, haven't discussed with Mr. White yet, will actually do so later on when we get to comparing results of our models' preprocessing once our initial proof-of-concept is working for text summarization as well.
November 15th	Continue to research text summarization APIs and algorithms, continue to scale transcripts dataset in parallel	Yes, continued research API options, started to experiment with two, resolving errors, collected more transcripts for the dataset
November 22th	Start implementation of algorithm utilizing decided upon APIs's various methods and comparing results, continue to scale transcripts dataset in parallel	
November 29th	Continue and approach finalization of implementation of algorithm utilizing decided upon APIs's various methods and comparing results, continue to scale transcripts dataset in parallel	
Winter Goal	Implement local, interactive Python code (maybe with GUI) that receives TED talk URL as input, queries IBM Watson's Speech-to-Text API, returns a transcript, summarizes it, and displays it to the user for a quick read. The app may potentially be able to work on a few limited cases of videos other than TED talks, but that may be more in the future.	

Reflection

Starting this text summarization component of our project has brought new APIs to explore and challenges to resolve. I've already seen that with the DeepAI and MeaningCloud initial examples.

Hopefully I can get a test running with an example transcript summary returned soon, so I can work more on scaling the dataset for summarization as well. We're making all the right steps toward our Winter Goal; if we can have text summarization solidly under our belts, getting some helper programs/code in place for a good, end-to-end UI should be no trouble.