Journal Report 6 10/4/19 - 10/11/19 Arnav Bansal Computer Systems Research Lab Period 5, Bansal

# **Daily Log**

## **Monday September 2**

Obtained more transcripts in parallel from the IBM Watson speech-to-text API demo website. In tandem, worked to resolve misunderstandings regarding the API's functions and errors in making requests. Installed necessary packages to write code locally to make API requests to IBM Watson: ibm-watson (SpeechToTextV1 module/function),

ibm-watson.websocket (RecognizeCallback, AudioSource objects), ibm-cloud-sdk-core.authenticators (IAMAuthenticator object).

## Wednesday September 4

Not at school

#### Friday September 6

Continued to obtain more transcripts in parallel from the demo site. Now have 12 transcripts. Placing them as third column in the excel spreadhseet for the data set (shown in a previous journal report, see updated version below). In tandem, figured out how to successfully make IBM Watson API requests locally in Python by using the functions above and writing methods to open file, run those functions with necessary parameters, and save transcript output to a file. Tested with a sample MP3 file. Working to scale the code in parallel to many TED talks.

# **Timeline**

Date	Goal	Met
September 27th	Find high-quality algorithms for	Yes, see previous page with algo-
	laughter and applause detection in	rithms found and summary discus-
	audio files, Manually approximate	sion of results for lengths of laughter
	average lengths of each in several	and applause in TED talks; Also pur-
	TED Talks	sued additional project goals
October 4th	Successfully set-up Watson for local	Partially, still working/figuring out
	implementation of curl and Python	how to use IBM Watson's Speech to
	API requests for speech to text on	Text API in Python locally with the
	some TED talks and compare those	HTTP requests, but still managed to
	transcripts to the real ones manually	obtain transcripts for some TED Talks
	processed by TED	and compare them to the real ones
		manually processed by TED
October 11th	Among me, Arvind, and Mr. White,	Yes, have working Python code for
	figure out how to use IBM Wat-	making IBM Watson speech-to-text
	son's API locally in Python for scal-	API requests; also expanded data set
	ing the dataset in the near future	to 10 transcripts from the API.
	and continue to obtain as many TED	
	Talk transcripts as possible for initial	
	tests of summarization in the coming	
	weeks	
October 18th	Start scaling dataset using IBM Wat-	
	son API to up to the 27 TED Talks al-	
	lowed this month (500 minutes total	
	cap), then decide when we'll need to	
	upgrade to a higher API access level	
	for more requests and transcripts to	
	start video transcript summarization	
0 1 25:1	task of the project	
October 25th	Start researching for initial parts of	
	the video transcript summarization	
	and in tandem, continue to build the	
	dataset over time	

## Reflection

It was a relief to overcome hurdles in understanding how to use the IBM Watson API and setting up the requisite packages. Now we should be able to start expanding our dataset at a faster rate. It's also been nice to have this demo site running queries in parallel on the side, and I might continue getting more transcripts this way too, in addition to the code for doing so directly. Please refer to the snapshot of the spreadhsheet dataset below for an idea of how we're formatting it (first column is official transcript from TED, second is URL to TED Talk where we download the MP3 files – the link itself is not actually important data for summarization later, and third is the transcript returned by IBM Watson's Speech-to-Text API):

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