Journal Report 7 10/13/19-10/26/19 Arvind Ravipati Computer Systems Research Lab Period 1, White

Daily Log

Tuesday October 15

Worked on Splitting a File Into Multiple Segments, due to the 100 MB Limit on an Audio File. Looked Into Potential Libraries and saw that Stack OverFlow Threads Suggested AudioSegment. Installed and Implemented AudioSegment. Successfully Split the File into Three Different Segments, each Around 80 MB.

Thursday October 17

Made Script to Call IBM Watson API Separate Times. However, due to Each Command Being Synchronous, the Calls were Sent Out of Order and the Transcript Became Jumbled. Looked at API Reference and Thought of Calling Without Websockets and With Callbacks. Decided to Include Delays to Let Each Call Happen Before the Other. Noticed that Between the Smaller Audio Files, some Words in the Original Audio File were Not Properly Transcribed or Completely Forgotten All Together. After Talking to Mr. White, Realized Converting to MP3 could Avoid this Issue.

Monday October 21

Using Mr. White's Suggestion, Converted WAV File to MP3 File, which Met the File Size Limitation of 100 MB. Error Came Up that Said "RuntimeWarning: Couldn't find ffprobe or avprobe - defaulting to ffprobe, but may not work warn("Couldn't find ffprobe or avprobe - defaulting to ffprobe, but may not work", RuntimeWarning)" Had to Download FFMEG to Fix This Error, Which Took Longer than Expected.

Tuesday October 22

Successfully Ran Script Without Any Errors and Warnings. Returned a Transcript that Flowed Decently, but Had Some Issues with the Translation of a Few Words, due to Speaker's British Accent. Looked Into Possible Parameters, Specifically Language Ones, to See if Results Could be Better. Used Language "en-GB," which Positively Changed the Results.

Thursday October 24

Continued to Run the Script and Read Threw Parts of Each One to Find the Best Transcript. Different Runs Always Yielded Slightly Different Transcripts for Some Reason. Decided to Keep AudioSegment to Cut out the Introduction that was not Included in the Dataset Transcript. Found a Transcript that Seemed Mostly Correct.

Timeline

Date	Goal	Met
Oct 11	Integrate Laughter/Applause Detec-	No, We Decided to Use IBM Watson,
	tion from Partner and Script	Which Detects Laughter/Applause
Oct 18	Get Results from IBM Watson Speech	No, Had Trouble With the Size of Au-
	to Text for all TED Talks	dio File Limit
Oct 25	Research Possible Text Summariza-	No, Got a Good Result From One
	tion APIs and Methods	TED Talk
Nov 1	Get Results from IBM Watson Speech	
	to Text for Multiple TED Talks	
Nov 8	Research Possible Text Summariza-	
	tion APIs and Methods	

Reflection

I felt I wasted the first week trying to break down the audio segment into segments to meet the file limitation, not knowing that MP3 files took up less space. However, it was good to finally realize this simple fix and I was able to produce transcripts. Listening to the TED Talk, I realized there were many times that even I was unsure what the speaker was saying due to his accent or quick speaking. In addition, I noticed he used many fillers that could potentially confuse the API. I also recognized my goals for my timeline were slightly ambitious initially and decided to put off starting text summarization until second quarter. I hope to be able to produce transcripts for multiple TED Talks that have around the same accuracy as this transcript by the end of next week. Below is the transcript, highlighted where the transcript was wrong (Many of the times the API was wrong, the author was speaking quickly or was poorly enunciating his words).

Good morning and how are you it's been great I have been blown away by the whole thing in fact I'm leaving yeah uh and and the three firms have no running through the conference and which are relevant to what I want to talk about one is the extraordinary evidence of human creativity in all of the presentations of hand and and and all the people here that is the work of the variety in the range of at the second is the expert in a place where we have no idea what's going to happen uh in terms of future no idea how this may plans I have an interest in education uh actually what I find is everybody has an interest in education <mark>the new</mark> I'm very interested at a dinner party and you say you work and education actually you're not of the parties frankly the financing if you were an invasion of last year in the store and <mark>you never answered accuracy</mark> and the but if you are and you say to somebody uh knows what to do and you say you work in education and you can see the blood run from the face and oh my guard in Miami it has my one night a week uhm but if you ask about their education they can use the wall that's one of the things goes deep with people around like religion and money uh and things so um I have a big interest education I think we all do uh we have a huge just interested partly because it's education is meant to take it into the future with Congress if you think of children starting school this year will be retiring in twenty sixty five nobody has a clue despite all the expertise that's been on parade for the past four days what the world look like in five years time an elementary education for so the predictability I think is extraordinary and the third part of this is that we've all agreed nonetheless only really uhm extraordinary classes the children have their capacities for innovation the minister realise night was a Marvel Wattenscheid discussing what you do and she's exceptional but I think she's not um so to speak exception in the whole of of childhood what you have those first extorted occasion for the talent and my contention is all kids have tremendous talents and respond to them pretty with the state and so I want to talk about education and I want to talk about creativity my contention is that creativity now is as important in education and literacy and we should be treated with the same status thank you how that was it and thank you Mister and so fifteen minutes left yeah and well I was born no the uhm and I had a great story recently I like to think of a little girl who is in a drawing lessons six during the day the little girl had ever paid attention an historic mission she did and the teacher with fascination and opportunity said what is drawing and the girl said I'm drawing a picture of god and the teacher said but nobody knows what god looks like and the girl said in a minute how yeah dawn when my son was four in England as for everyone to go and in the to everyone who is