

## Daily Log

### Monday September 23

Brainstormed Ways to Detect Applause and Laughter. Considered Manually Recording Length of Each Sound and Making that the Segment Length, but Found Out That There was too Much Variation in Lengths. Looked into Possible Laughter Detection Models.

### Tuesday September 24

Looked into Different Algorithms to Compare Two Strings. Found Algorithms such as Levenshtein Distance, Hamming Distance, Smith-Waterman, and Sorenson-Dice Coefficient. Thought it was not Completely Worth to Code from Scratch and Looked into Libraries for It. Found Sequence Matcher and Tried Implementing It. Spoke to Mr. White on Ways to Account for Laughter Detection and Decided that Partner Could Focus on That, while I Would Focus on Getting Results from Original Algorithm and Finding the Best Segment Length.

### Thursday September 26

After Continuously Running Trials, Found that Each Translation Takes about 5 Minutes. Sequence Matcher returned Extremely Low Similarities, which Did not Match what I saw from a Glance at the Transcripts Side by Side. Tried Making each Segment 5 Seconds Long to See if There was Any Improvement. There was a Slight Improvement but Still Below Average Results. Realized Audio File had An Introduction that was not Part of the Transcript and Tried to Manually Take it Out.

## Timeline

Date	Goal	Met
Sep 13	Find Good Audio to Text API or Github Repository and Implement	Yes, Found Speech Recognition and Tested with Sample .wav File
Sep 20	Be Able to Input a Whole Ted Talk and List the Most Probable Transcript	Yes, Decent Transcript Returned in about 40 Seconds
Sep 27	Be Able to Better Account for Sounds such as Applause and Laughter	No, Looked into Detections and Decided Partner Would Focus on It
Oct 4	Integrate Laughter/Applause Detection from Partner and Script	
Oct 11	Find Best Extension of Speech Recognition and Compare All Transcripts	

## Reflection

While I did not stick to my week goal plan, I still made progress with a different part of the project. After I speaking to Mr. White, I realized my partner and I should focus on separate tasks so we can integrate our code later on. My partner decided to focus on the laughter detection while I decided to continue with working on finding the optimal segment length and metric to obtain results. I hope to be able to integrate the laughter/applause detection model with my script in a maximum of two weeks. I am still looking into a better extension of Speech Recognition (right now I am using the Google extension but other ones are offered).