Automatic Error detection for ASR Transcripts

IASNLP 2022
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1 Problem Statement

The ASR is given and the audio file to test it on is either given or chosen (based on convenience). This is a two part problem, the first part consists of obtaining the ASR transcripts and evaluating it for percentage misalignment. The second part involves testing these transcripts and observing, on a word level, how the prosodic features (rising, falling or stagnant) affect the output. Finally , to build a model/system which will automate the correction of such errors.

2 Prerequisites

Certain knowledge which is required prior to starting the project:

Linguistic Knowledge, especially the intonation patterns in speech and their observed effects in accented speech.

Kaldi toolkit, which is necessary to test out the alignment features.

Basics of Programming and NLP to use the ASR, and to consequently make a system which automates error correction

3 Need for Alignments

For any speech related task, generating alignments is core before proceeding in any manner. It is crucial as misalignment of a phoneme might completely change the meaning of the word, and in turn, the sentence. The misalignment is also a cause for generation of many errors, namely phonetically confusing words, word boundary ambiguity, spelling mistakes, etc. all in turn increasing the WER (Word Error Rate)