

Lab 3, A: Report

To detect hard cases for speech recognition I tested my DM app with foreign names, scientific flower names, particularly hard to pronounce English words and locations. Overall, the confidence scores were surprisingly low, with the highest one being around 0.36, but most of them lying under 0.15. In some cases, the words could not be understood at all, for example for the names “Vlad”, “Chiara” and “Gioele”, or for the flowers “Zantedeschia” and “Aquilegia”. In other cases, the app was able to guess the word correctly at least once, but without being overly confident about its decision. I suppose most of this low confidence rate is caused by my pronunciation, since I am not a native English speaker, and hiding my Italian accent is particularly difficult when it comes to more complicated words. But the fact that the names and the cities were foreign (or would be foreign for an English speaker) certainly has a great impact on the model’s confidence, and so does the fact that sometimes the word is just spelled differently in English, or it’s read with a different intonation. Attached here you can find all the words I tested and the results I obtained, with confidence scores (and what the model understood if it could not capture the right word) and what I think the reason for its lack of understanding was.

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154 /** stratos = confidence: 0.28154874 (foreign name)
155 * rhodri = utterance: "Rodrig", confidence: 0.082974106
156 * (noinput)
157 * confidence: 0.2489454 (foreign name)
158 * aya = utterance: "I am", confidence: 0.1575687 (foreign name)
159 * utterance: "Ayam", confidence: 0.12734635
160 * confidence: 0.1254661
161 * pokémon = confidence: 0.36420196 (accent)
162 * vlad = utterance: "Blood", confidence: 0.1027843 (accent)
163 * utterance: "Blood", confidence: 0.11436765
164 * lucia = confidence: 0.14151645 (accent)
165 * chiara = utterance: "Kiara", confidence: 0.13246362 (different spelling)
166 * gioele = utterance: "Joy Lim", confidence: 0.0955479 (foreign name)
167 * utterance: "Joelle", confidence: 0.1057533
168 * utterance: "Joel", confidence: 0.07281523
169 * campanula = confidence: 0.1760843 (accent)
170 * chrysanthemum = confidence: 0.046253357 (accent)
171 * zantedeschia = utterance: "Dante Deschium", confidence: 0.068396404 (accent, prosody)
172 * utterance: "Dante Deschia", confidence: 0.05221627
173 * utterance: "Zen, Tedeschiya", confidence: 0.10185561
174 * aquilegia = utterance: "Aquilaja", confidence: 0.047207244 (accent)
175 * utterance: "Akhilija", confidence: 0.054188915
176 * consanguinous = confidence: 0.14817153
177 * utterance: "Consanguine news", confidence: 0.083397135
178 * diaphanous = utterance: "Diafonous", confidence: 0.09325534 (accent)
179 * confidence: 0.22257042
180 * grandiloquent = confidence: 0.045816075
181 * rwanda = confidence: 0.20189476 (accent)
182 * gdansk = utterance: "Dance", confidence: 0.049801502 (foreign city)
183 * confidence: 0.20205876
184 * warsaw = confidence: 0.07897937 (foreign city)
185 * innsbruck = confidence: 0.09515359 (foreign city)
186 * poznan = utterance: "Pause None", confidence: 0.153734 (foreign city)
187 * confidence: 0.058338735
188 * utterance: "Post none", confidence: 0.08257924
189 * krakow = confidence: 0.17730933 (foreign city)
190 */
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