Meeting Notes 10/4/2024

Capstone Project

Dave is our client. Interactive Voice Coach.

Machine Learning is being worked on by the linguistics department at UBC. Training Data is captured from patients in a clinical environment, dysarthric speech. As well as from a university in Illinois giving a larger amount of data.

Parkinsons, in our clients use case, is the main driving force behind dysarthric speech.

Need a chatbot to capture more natural dysarthric speech. So the software will capture daily results from those with speech problems to see if there is an overall improvement. i.e. Not a repeat of the same word 10 times, and rather will capture real-time chats and provide immediate direct feedback.

The end goal is that the client can offer a service that can correctly interpret how people with speech problems are speaking and provide a “translation” to more recognizable product. Sort of like an advanced version of Stephen Hawkings communication device but more natural sounding, and in real-time based off of what the patient is saying.

Current speech recognition is 75% in the proof of concept model and the hope is to increase to 90ish% in speech recognition.

Currently there is a focus group on how to deliver the results to patients in a way that is motivating rather than inhibiting their ambitions to continue speech therapy. This will help the client in getting an ethics certification in terms of handling the patient data.

Where we start:

Client doesn’t necessarily care about our tech stack. Wants us to use a modern and lightweight project infrastructure to manage our sprints. i.e quick changes to codebase and not archaic.

We need to set up more meetings with Dave to distill the capstone into discrete tasks and actionable steps.

Start with two/three(?) times a week meetings with Dave.

Maybe talk about a more structured way to accomplish our sprint tasks. i.e Specific dev times for each person.