Journal Report 10
11/18/19 - 11/25/19
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Daily Log

Monday November 11

On Friday, my partner had worked further on creating a video with the skeletal frame on the video. So I used to code from my hand tracking program earlier and attempted to use the same video writing process with openpose.

Tuesday November 12

Learned more about the 3D modeling process and began working on callibration code and installs.

Thursday November 14

Partner and I discussed and decided to try to identify it using only a single video if possible. I also decided to not use colab for video processing and began to install on my computer. Dont have a good enough graphics card and talked to Dr.White about solutions.

Timeline

Date	Goal	Met
11/4	Place skeletal model using python environment on computer	Yes, using OpenPose
11/11	Work with partner to put data into neural network, tweak position data if necessary	No, but we will be able to get position data from the 3D modeling
11/18	Calibrated cameras and have calibration model ready for testing	No, changed approach to this. Now attempting to extract from video
11/25	Set up the big machine with all the necessary packages and run it own video	
12/2	Find and extract Position data from the videos	
Winter Goal	Have data for classification algorithm and be able to classify a move	

Reflection

With the video processing of the new machine, getting position data should be fairly easy to obtain. I will need to figure out the exact specifications but I do not think it will be too difficult to implement. I hope to run on a video tomorrow but I may also be formatting my github during class.

While 3D modeling would be useful, that may be a later aspect of the project. For now, my partner and I decided to use one camera angle and classify it that way. Because we will be analyzing angles between joints, hopefully this will not be an issue for simple movesets, facing the camera.

This may pose an issue for more complicated forms and moves, as they will be moving around and not as visible from the camera. However, initially, we will only use one camera if possible. I also decided to move away from colab. While weve had some successes with video processing, I decided that it would be simpler to use a regular program. I tried to install all of OpenPoses dependencies on my machine but my computer runs on a 32-bit system and CUDA requires a 64-bit system.

This week, I would like to set it up on the desktop and see what the output would be and extract position data if possible. This will give us more freedom for video processing. We will still be using colab for the classification because colab is useful for neural networks.