Journal Report 13 12/8/19 - 12/16/19 Sophia Wang Computer Systems Research Lab Period 1, White

Daily Log

Monday December 9

I categorized all the body and hand angles that we will be calculating. I also made a lookup tables with the indices of the angles.

Tuesday December 10

I reorganized the list from [x1, y1, c1...] to [(x1,y1), (x2,y2),] so it would be easier to parse. I set up the for loops for file parsing.

Thursday December 12

I finished the code that prints the angles into a text file. I generalized the filepaths for the output files.

Timeline

Date	Goal	Met
12/2	Find and extract Position data from	Yes, I have met this goal
	the videos	-
12/9	Create pose using kmeans and begin	No, but we have all the angle classify-
	classifying poses using k-nn	ing data, we will need to gather more
		data as well
12/16	Classify pose using k-nn	No, but we have all the angle classify-
		ing data, we will need to gather more
		data as well
1/6	Start on Dynamic Time Warping code	
	and work on classifying a move	
1/13	Finish classifying move	
Winter Goal	Have data for classification algorithm	
	and be able to classify a post	

Reflection

Organization was probably the most difficult part of this week. I spent a lot of this week simply setting up the foundation. I wanted a way to simply parse through the files.

```
def body_frames(output_folder):
outpath = "../output/output_angle_calc/{0:}_angles".format(output_folder)
inpath = "../output/video_output/{0:}_keypoints/{0:}_{1:012d}_keypoints.json"
i = 0
output = open(outpath, 'w')
while(os.path.isfile(inpath.format(output_folder, i))):
    output.write(str(frame_parse(inpath.format(output_folder, i))))
    i += 1
output.close()
```

The code will format the filenames will the same identifier. (Ex: VID-TEST-CASE-1) Additionally, we will need more test cases to classifiy moves. I will film and find more videos for training this week. The angles are each frame are stored in a text file.