Journal Report 2 9/8/19-9/15/19 Sophia Wang Computer Systems Research Lab Period 1, White

Daily Log

Monday September 9

Researched motion tracking. Learned about the theory behind it. Found and worked through a tutorial using Google colab and OpenCV. Certain functions won't work with google colab such as imshow. Also learned how to access computer's camera from colab.

Tuesday September 10

I finished the tutorial I started on Monday. My partner also asked me to research knn and svm algorithms to classify our movesets. Also looked into articles detailing how to extract position data from video.

Thursday September 12

I filmed the hand waving video in the hall and uploaded to google drive. Ran into some errors while trying to analyze it, such as file paths being in the drive folder and drawing the intial box. I plan to fix these at the beginning of next week.

Timeline

Date	Goal	Met
9/2	No goal	
9/9	Download and use OpenCV	Yes and No. OpenCV is not intalled
		on my personal machine but I will be
		using Google Colab.
9/16	Film hand waving video and begin	Yes, the hand waving video is filmed
	video analysis	and may need to refilm as my hand
		goes slightly out of frame but will re-
		quire further testing.
9/23	Track Hand Movement and finish	
	video analysis	
9/30	Begin to place skeletal model on hu-	
	man	

Reflection

While this week was mainly a research week, I learned the foundation of our project. I plan to build upon what I have learned. I am not comfortable with the OpenCV API yet but I plan to gain more experience. I may need multiple cameras set up at different angles to gather depth and different perspectives, especially when I begin filming move sets.