Journal Report 3
9/16/19-9/23/19
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Daily Log

Monday September 16

I looked into different ways to apply the YOLOv3 library into python. I found darknet, which contained the YOLOv3 library. I made sure that the installation steps I took before were correct. I did not link YOLOv3 with OpenCV before, so I downloaded the library again.

Wednesday September 18

I abandoned the darknet installation because I was encountering many problems. I looked into other ways to use the YOLOv3 library with OpenCV. I also learned about the different components of the YOLOv3 library and how they are used.

Friday September 20

I found a tutorial on how to combine YOLOv3 with OpenCV in Python from Learnopencv.com. I started implementing YOLOv3 this way. I got pretty far into the process and am at the point where I can start to apply the neural network to detect the basketball. In the example code they had some method headers where the definitions were not mentioned. It took me some time to find out that they were written by the website's author himself and was not a part of a third-party library.

Timeline

Date	Goal	Met
Sept 9	Download all needed software and get test video	Yes. Downloaded OpenCV and Darknet. Started on finding scoreboard
Sept 16	Identify the scoreboard to find when live play is in session	Yes. My program can identify the scoreboard when it is on the screen and can notice when it leaves the screen.
Sept 23	Test YOLOv3 on Python environment and fix install if not correct	Downloaded all needed components of YOLOv3. I am almost done implementing it in my code to detect the sportsball.
Sept 30	Apply YOLOv3's pre-trained sportsball neural network on my video	
Oct 7	Implement and store ball's trajectory when it is shot	

Reflection

This week, I did not have a real deliverable as my goal, but implementing YOLOv3 is an essential step to tracking the ball, which I am targeting to complete next week. Although, I was not able to complete this goal, I am almost done implementing YOLOv3 and I am directly applying it to the basketball. I am not doing it on an example. This will essentially fulfill my goal of this coming week of detecting the basketball.