

## Daily Log

### Monday September 23

I continued from where I left off last week. I continued to implement the code to use YOLO to track the basketball in my project. I was able to include the methods that the website's author made, which are used for drawing the bounding boxes around tracked objects and other visual functions. They are not used for the actual neural network.

### Wednesday September 25

I finished implementing the pretrained YOLO network into my code. I was able to do a preliminary test at the end of the period, but there were run time errors that popped up.

### Friday September 20

I spent the period debugging my code and trying to find out how to fix the run time error. The code was fine for all the parts before the first frame with the scoreboard was identified, but after that, a run time error popped up saying there was a problem somewhere in the author's method. I debugged the method and tried to find out what was wrong. I could not find a solution.

## Timeline

Date	Goal	Met
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	Still debugging code to track the basketball
Oct 7	Track basketball and implement and store ball's trajectory when it is shot	
Oct 14	Implement way to track whether a shot goes into the hoop or not	

## Reflection

This week was pretty tough for me because it was primarily a debugging week which does not show much progress. I made some good progress in implementing YOLO's sportsball tracking network. This is probably the most important step in my whole project, so I know that I have to work hard and try to make this step as accurate and efficient as possible. Next week, I am going to try have program successfully track the basketball and also calculate the trajectory of the ball. This will put me very close to calculating score of a basketball game.