Daily Log

Monday October 7

I widened my search of the error online. I know knew there was something wrong with the picture sizes.

Wednesday October 9

I found out that the width and height have to be a multiple of 32 or in the forward prop, their would be a list size error. I changed the height and width to be 640 and the code worked. My program was identifying players on the court, but it was not recognizing the ball. The ball was very blurry in the frames, so I can understand why this was happening. I increased the number of pixels in the height and width, and it still was not tracking the basketball.

Friday October 11

I tried to edit the Non-maximum suppression and confidence threshold values so that the program would track the ball. But, even at the most extreme settings (nmsuppression threshold at 1 and confidence threshold at 0) it still did not track the ball. It was tracking all of the players accurately though and sometimes identified the ball as a baseball glove. I made a backup plan to track the ball using the same process as the scoreboard. The user will identify the basketball when it is first shown and then a tracker will track the ball. I was not able to test this method yet.

Timeline

Date	Goal	Met
Sept 30	Apply YOLOv3's pre-trained sports-ball 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	Still trying to track basketball. Runtime error
Oct 14	Implement way to track whether a shot goes into the hoop or not	Implemented YOLO, but not tracking basketball. Will use backup plan.
Oct 21	Track trajectory of ball	
Oct 28	Brainstorm ways to identify the number of points a shot is worth	

Reflection

I made some progress this week in implementing the YOLOv3 pre-trained neural network code, but it wasn't able to track the basketball. It did track players accurately though, so I will keep this code on my computer for when I get to the step in my project where I need to track players. I will track the basketball like the scoreboard for know so that I can advance in my project, and I may come back to this problem later to try to find a fully-autonomous way to track the basketball.