

Journal 0

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1 3 Sentences

During basketball games, human scorekeepers can make errors and cost the team money. There are many Computer Vision libraries for object detection, like the YOLO Neural Network Library, which has pretrained neural networks on common objects. My project will conduct scorekeeping and track other statistics for a basketball game livestream using the YOLO library and other Computer Vision algorithms.

2 Overview of Project

My project will use Computer Vision to conduct scorekeeping and track statistics for a basketball game livestream. I am planning on using the YOLO neural network library because there are many pretrained neural networks on objects that would be valuable in my project. For example, there is a sportsball neural network. To calculate numerous statistics, like determining whether the ball went through the basket, I will calculate the direction the ball is traveling and see whether there is a big change in that direction after the impact of the ball hitting the rim. I will use a similar frame of mind for the other statistics like blocks and rebounds.

3 Summer

I did not work on my project over the Summer. Instead, I was working in an internship.

4 Software

For my project, I will need to download the OpenCV library and YOLO library for Python. These are both Computer Vision libraries that contain useful functions that I can use in my project. I will also need to get the video of a basketball game to test my project out. Additionally, I will need data for the

players on the basketball teams. This can be data pulled from a database, or at text file that a human makes manually.

5 Partner

I am not working with a partner