***“A MUST READ!”***

Intro and advice on Video Object Tracking technology

1. First glance, I would be interested in being able to detect different people. We can accomplish this by applying an AI called YOLOv3.

<https://www.pyimagesearch.com/2018/11/12/yolo-object-detection-with-opencv/>

If you can cut out the individuals from the frame, you can as well potentially detect their jersey color and attribute them to a team. So that begs the question: can you develop a heat map of where players are in different games and use that to analyze performance?

1. Actual pose is another thing that is very interesting, and can be used to determine different actions a player might take. One can detect pose with Facebook’s detectron2. Here is the repository that can be used to get started.

<https://github.com/facebookresearch/detectron2/tree/master/projects/DensePose>

Actual motion might be difficult to assess, but I believe taking the skeleton that this AI produces could be a great way to look at interesting metrics.

1. Finally, looking at a scoreboard. You can use YOLOv3 to detect whether or not you are looking at a scoreboard and then from there use OCR to read it. Here is a blog on OCR.

<https://www.pyimagesearch.com/2018/09/17/opencv-ocr-and-text-recognition-with-tesseract/>