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Object Detection in Python Using OpenCV

Object Detection is one of the most important use cases in the field of Computer Vision. It has many use cases including training the software to distinguish people, particularly trained objects such as cars in a moving video, walking pedestrians, and so on. While we as humans can do this instantaneously, getting the software to do this requires the use of well-trained algorithms. So, in this project, I will be building an object detection system that will consider the basic idea by which moving scenes are generated, a combination of frames. Frames can be accessed as singular images with various objects in them with a relative distance between them. We can separate the objects using a boundary such as a box. Isolating the object as the only thing at different positions in different frames relative to the surroundings can be done by using image dilation and thresholding. To do this, I will be using Python and its OpenCV library. The use cases of this project can be in traffic management systems, license plate detection, and crowd counting.

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