Project Proposal

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My proposal is regarding object identification to create an Augmented reality. Here in this project i just want to show how we can identify an object i.e., Object identification. The main ideology of my project is to Recognize an object. So in my project am planning to add the concept of a sliding window. Sliding windows play an integral role in object classification, as they allow us to localize exactly where in an image an object resides. So by utilizing both a sliding window and an image pyramid we are able to detect objects in images at various scales and locations.

In the context of computer vision (and as the name suggests), a sliding window is rectangular region of fixed width and height that slides across an image.

The Sliding windows for Object detection we can do with the help of python and OpenCV. Mainly the Sliding window function requires three arguments. The first is the image. The second argument is stepSize. The stepsize is nothing but it indicates how many pixels we are going to use. The last argument is windowsize defines the width and height of the windows. By combining a sliding window with an image pyramid we are able to localize and detect objects in images at multiple scales and locations. These techniques, while simple, play an absolutely critical role in object detection and image classification. While both sliding windows and image pyramids are very simple techniques, they are absolutely critical in object detection. Suppose if image is substantially larger than your 64128 window, then you should apply an image pyramid. This project is am using for my other project. I want to extend this project in Augmented Reality. But as per now am only i am only detecting objects for Sliding windows using Python and Open CV. If i get chance and if i am able to track the object then i will try do that either.