

Single Shot Multi Box Detectors (SSD)

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What is SSD?

It is a machine learning algorithm used for the computer vision applications.

What is the purpose?

This algorithm is used to draw bounding boxes around the different objects of interest in an image with vector of values representing probabilities of different class of objects of interest in any particular box.

What is the advantage of SSD?

It is one of the real-time object detection algorithms. It can be run on embedded systems with decent computation capabilities in real time

What is the common pipeline of previous approaches?

Previous approaches involve the pipeline of hypothesizing the bounding boxes, resample pixels or features for each box, and apply the high quality classifier. (e.g. Faster R-CNN)

What is the drawback of the previous approaches that led to the approaches like SSD?

The previous approaches are too computationally intensive for embedded systems, even using high-end hardware, too slow for real-time applications. (e.g. Faster R-CNN operates only at 7 frames per second (FPS))