

A system to enhance the accuracy of a computer vision model is disclosed. The system and method of enhancing the accuracy of computer vision machine learning models, includes object detection models from a given image source (e.g. camera, video file, sensor etc) as a pre-processing step for both training and inference steps. The process is a form of image pre-processing step, which is applied to images both before training as well as inference of any computer vision model. The purpose of the pre-processing step is to reduce the complexity of the input images to a representation that is both easier for the training step to learn and/or easier for the inference step to analyze the specific content of interest. The process lies not in the implementation details of the reducing pre-processing itself, but in the idea of applying such reduction onto both annotated data before training the model, as well as during inference on the resulting model.