Face Mask Detection Workshop: Day 2

Assignment

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Assignment – 2:

Scenario

After learning how to create a basic face mask detection model, the next plan of action should include improving the model's efficiency. There are several ways you can approach this. One of them is to improve the accuracy by data augmentation before training the mask detection classifier. The assignment will help you understand the various other options that you can include to make a better model.

- Learn about the various pre-trained models that can be used to train the classifier, for example – **yolov3**
- Learn about various feature detection techniques available in OpenCV
- There are other pre-trained models that can be used to create an image classifier, such as **MobileNetv2**. Use a different model to make the classifier using the same data set
- Haar Cascade is the fundamental technique to detect faces in the image. It is often inefficient and causes problems. To better recognize faces, detect the faces in the frame using the Caffe object detection model
- Try using the same model with multiple persons. If the model is not showing accurate results, there are chances that the model is overfitted. Train the model with more training samples using the data augmentation technique to generate more samples
- Make a sunglass detection model using the same principles used in the face mask detection model
- Learn about various feature detection techniques from the official documentation of OpenCV

This will enable a better understanding of the concept. You can move beyond the face mask detection and explore various other aspects of Computer Vision using OpenCV and Deep Learning.

Services used: TensorFlow, OpenCV, Deep Learning, Machine Learning, YOLOv3, etc.