# CSI4133_Project_Part B Markerless Hand Tracking in Video

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Document describing:

All the code is in handtracking-master folder.

Output.avi is final video output.

These codes use tensorflow for tracking hand, and PIL for draw line.

I used a trained model from an external reference. This model can detect hands in real-time using the Tensorflow Object Detection API.

PartB.py

1. Load a (frozen) Tensorflow model into memory.

2. Loading label map which import from utils folder

3. Detection hands

4. Visualization of the results of a detection.

5. Write in output video

6. Display

visualization_utils.py: This file is mainly used to draw the detection box of the detected hand and the trace of the hands. There are several important methods: draw_bounding_boxes_on_image_array(), draw_bounding_box_on_image(). These two methods are used to draw a box and draw a track.

Reference:

https://medium.com/@victor.dibia/how-to-build-a-real-time-hand-detector-using-neural-networks-ssd-on-tensorflow-d6bac0e4b2ce

The screenshot of outputs: