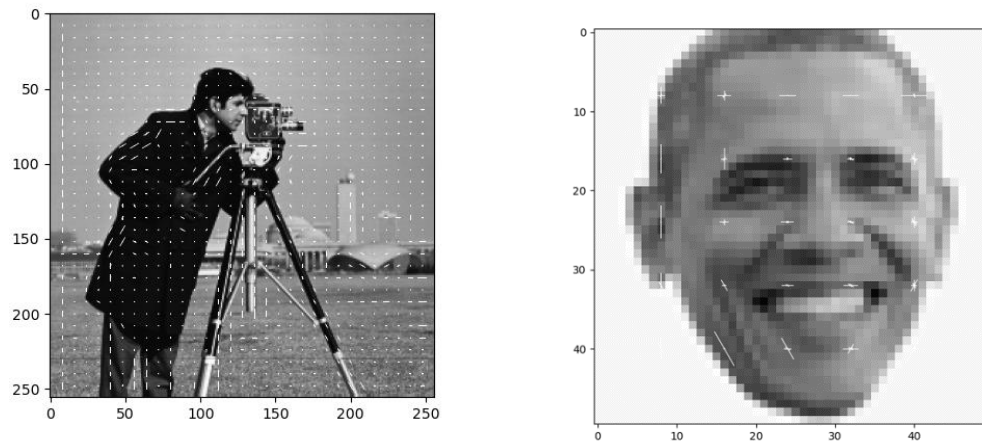
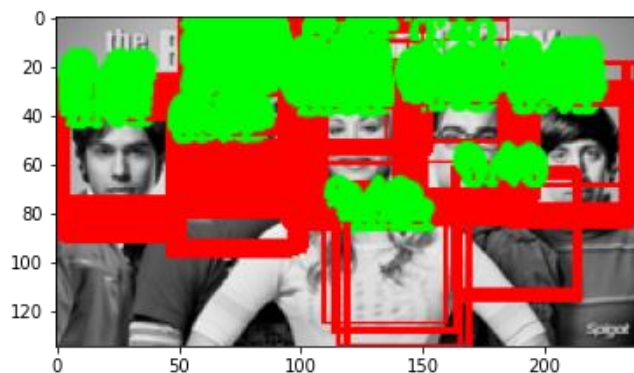


The HOG result:



We can see the lines follow the gradient of his shoulders, camera and legs. Also, lines follow the gradient of Obama's face.



After implementing the face_recognition and applying thresholding (0.48), we get the

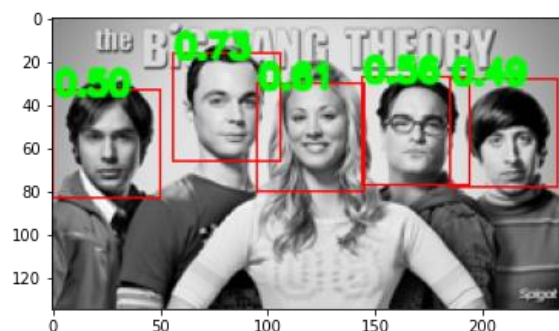


image with many bounding boxes.
iou, we get the final result.

After