Black Hat.py - C:/Users/chgan/AppData/Local/Programs/Python/Python311/Black Hat....

File Edit Format Run Options Window Help

```
import cv2
import numpy as np
img = cv2.imread(r"C:\Users\chgan\Downloads\MONACO GP.jpeg", cv2.IMREAD_GRAYS
kernel = np.ones((5,5), np.uint8)
blackhat = cv2.morphologyEx(img, cv2.MORPH_BLACKHAT, kernel)
cv2.imshow("Original", img)
cv2.imshow("Black Hat", blackhat)
cv2.waitKey(0)
cv2.destroyAllWindows()
```

Ln: 10 Col: 0

Black Hat.png

59%

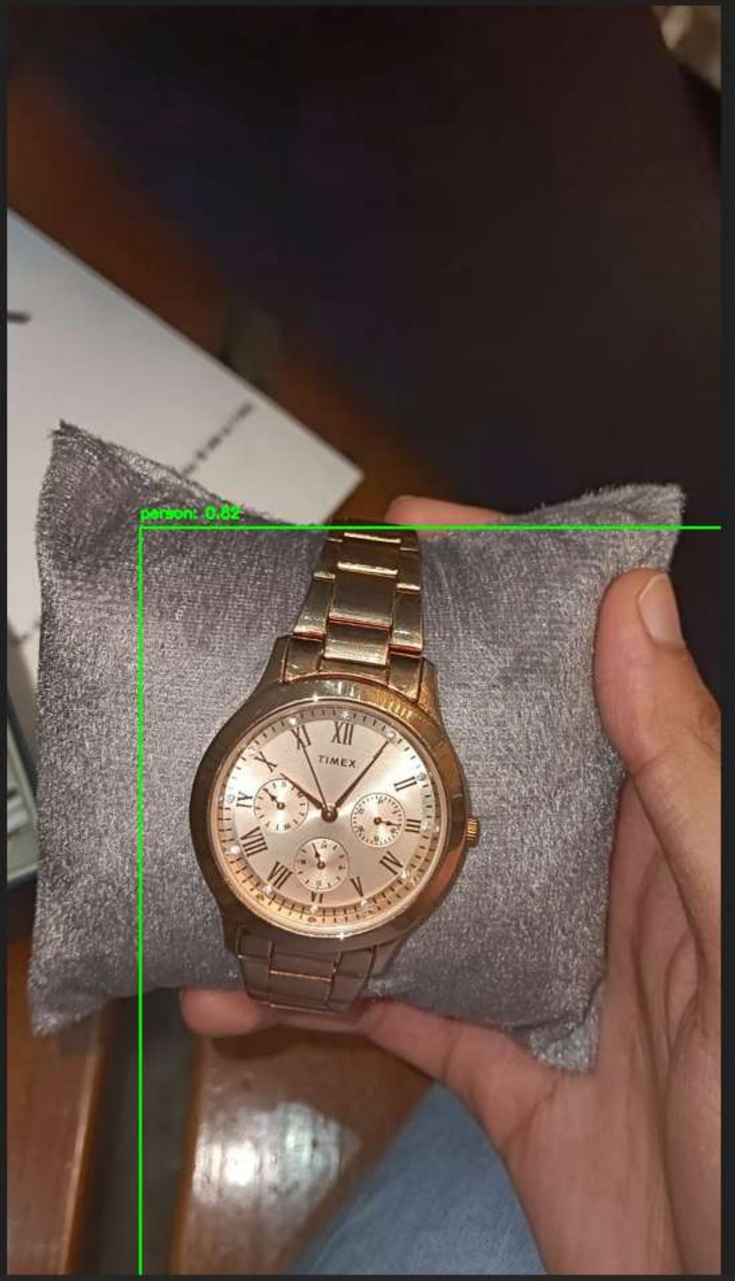
Watch Recog..py - C:/Users/chgan/AppData/Local/Programs/Python/Python311/Watch...

File Edit Format Run Options Window Help

```
import cv2
import numpy as np
class_labels = ["background", "aeroplane", "bicycle", "bird", "boat",
                "bottle", "bus", "car", "cat", "chair", "cow", "diningtable",
                "dog", "horse", "motorbike", "person", "pottedplant", "sheep"
                "sofa", "train", "tvmonitor"]
net = cv2.dnn.readNetFromCaffe(r"C:\Users\chgan\Downloads\deploy.prototxt", r
img = cv2.imread(r"C:\Users\chgan\Downloads\Z.jpg")
(h, w) = img.shape[:2]
blob = cv2.dnn.blobFromImage(cv2.resize(img, (300, 300)), 0.007843, (300, 300
net.setInput(blob)
detections = net.forward()
for i in range(detections.shape[2]):
    confidence = detections[0, 0, i, 2]
    if confidence > 0.2:
        idx = int(detections[0, 0, i, 1])
        label = class_labels[idx]
        if label == "person":
            box = detections[0, 0, i, 3:7] * np.array([w, h, w, h])
            (startX, startY, endX, endY) = box.astype("int")
            cv2.rectangle(img, (startX, startY), (endX, endY), (0, 255, 0), 2
            label = f"{label}: {confidence:.2f}"
            cv2.putText(img, label, (startX, startY - 10), cv2.FONT_HERSHEY_S
output_path = r"C:\Users\chgan\Documents\Detected_Watch.jpg"
cv2.imwrite(output_path, img)
cv2.imshow("Detected Watch", img)
cv2.waitKey(0)
cv2.destroyAllWindows()
```

Ln: 29 Col: 0

Detected_Watc...



73%

Reverse Vid.py - C:/Users/chgan/AppData/Local/Programs/Python/Python311/Reverse...

File Edit Format Run Options Window Help

```
import cv2
cap = cv2.VideoCapture(r"C:\Users\chgan\Downloads\LEWIS HAMILTON WINS THE BRI
total_frames = cap.get(cv2.CAP_PROP_FRAME_COUNT)
current_frame = total_frames - 1
while current_frame >= 0:
    cap.set(cv2.CAP_PROP_POS_FRAMES, current_frame)
    ret, frame = cap.read()
    if not ret:
        break
    cv2.imshow('Video in Reverse', frame)
    if cv2.waitKey(25) & 0xFF == ord('q'):
        break
    current_frame -= 1
cap.release()
cv2.destroyAllWindows()
```

Ln: 16 Col: 0

Video in Revers...

74%

Face Detection.py - C:/Users/chgan/AppData/Local/Programs/Python/Python311/Face...

File Edit Format Run Options Window Help

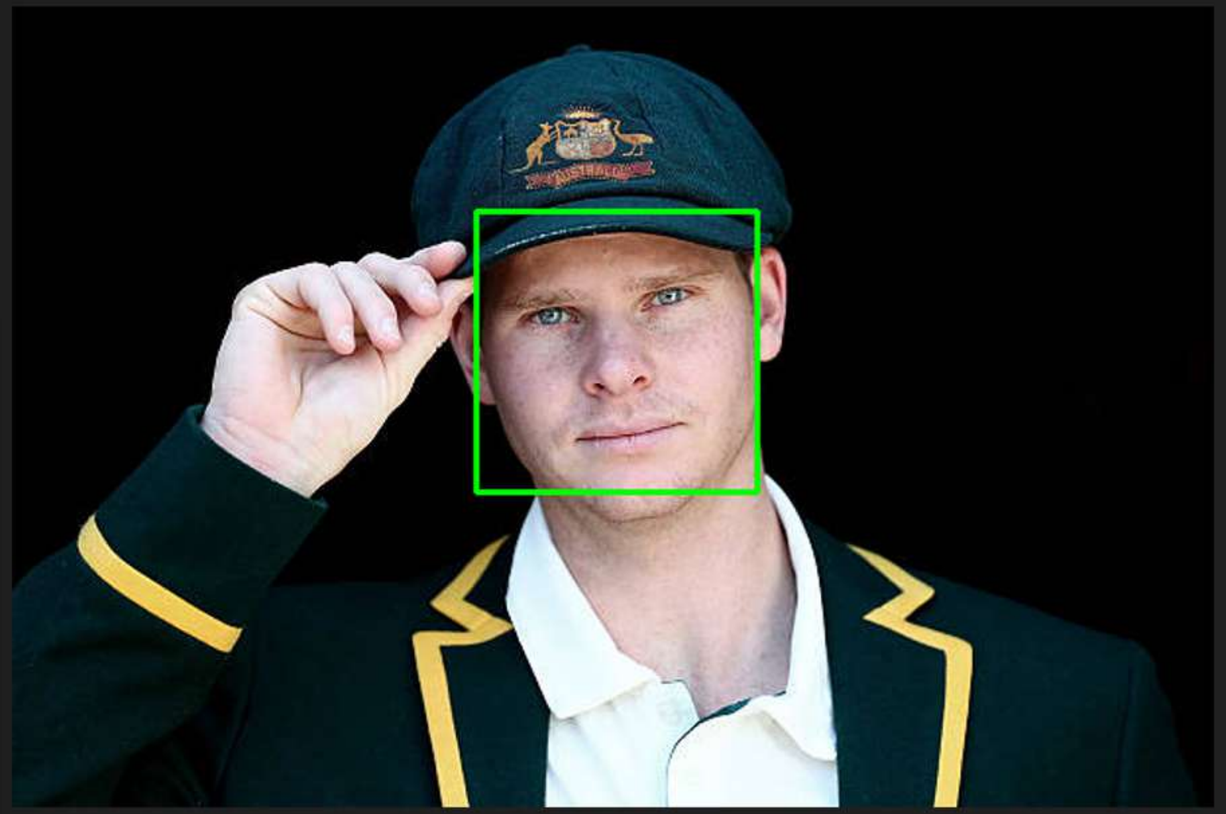
```python
import cv2
img = cv2.imread(r"C:\Users\chgan\Downloads\SMUDGE.jpeg")
if img is None:
    print("Error: Unable to load image.")
else:
    gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
    face_cascade = cv2.CascadeClassifier(r"C:\Users\chgan\Downloads\haarcasca

    if face_cascade.empty():
        print("Error: Unable to load Haar Cascade file.")
    else:
        faces = face_cascade.detectMultiScale(gray, scaleFactor=1.1, minNeigh

        for (x, y, w, h) in faces:
            cv2.rectangle(img, (x, y), (x + w, y + h), (0, 255, 0), 2)
        output_path = r"C:\Users\chgan\Documents\Faces_Detected.jpg"
        cv2.imwrite(output_path, img)
        cv2.imshow('Faces Detected', img)
        cv2.waitKey(0)
        cv2.destroyAllWindows()
```

Ln: 21 Col: 0

Faces Detected....



146%

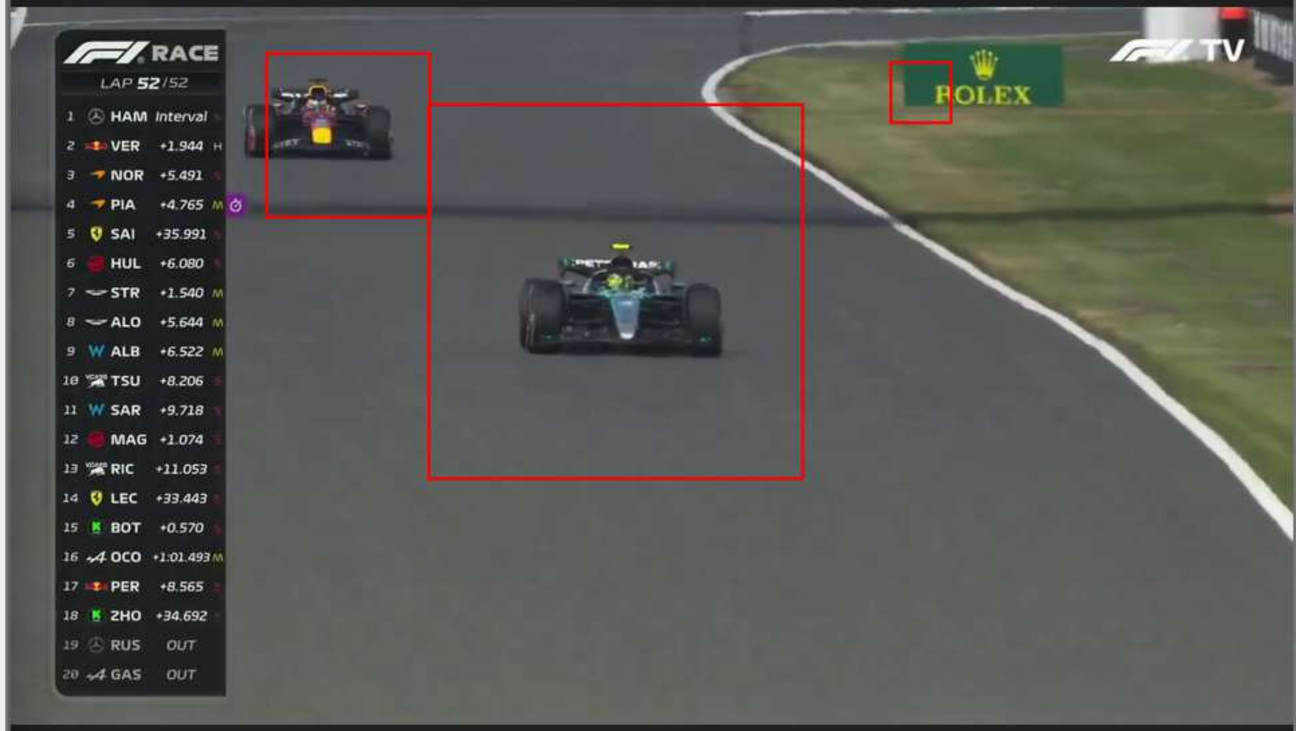
Vehilce Det.py - C:/Users/chgan/AppData/Local/Programs/Python/Python311/Vehilce...

File Edit Format Run Options Window Help

```
import cv2
car_cascade = cv2.CascadeClassifier(r"C:\Users\chgan\Downloads\cars.xml")
cap = cv2.VideoCapture(r"C:\Users\chgan\Downloads\LEWIS HAMILTON WINS THE BRI
while True:
    ret, frame = cap.read()
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
    cars = car_cascade.detectMultiScale(gray, 1.1, 1)
    for (x,y,w,h) in cars:
        cv2.rectangle(frame, (x,y), (x+w,y+h), (0,0,255), 2)
    cv2.imshow('frame', frame)
    if cv2.waitKey(1) & 0xFF == ord('q'):
        break
cap.release()
cv2.destroyAllWindows()
```

Ln: 15 Col: 0

Car Det.png



74%

ROI.py - C:/Users/chgan/AppData/Local/Programs/Python/Python311/ROI.py (3.11.4)

File Edit Format Run Options Window Help

```
import cv2
img = cv2.imread(r"C:\Users\chgan\Downloads\LH 44.jpg")
x, y = 100, 100
width, height = 200, 150
roi = img[y:y+height, x:x+width]
cv2.imshow('ROI', roi)
cv2.waitKey(0)
cv2.destroyAllWindows()
```

Ln: 2 Col: 54

ROI.png

345%

Top Hat.py - C:/Users/chgan/AppData/Local/Programs/Python/Python311/Top Hat.py (...

File Edit Format Run Options Window Help

```
import cv2
import numpy as np
img = cv2.imread(r"C:\Users\chgan\Downloads\MONACO GP.jpeg",cv2.IMREAD_GRAYSC
kernel = np.ones((5,5), np.uint8)
tophat = cv2.morphologyEx(img, cv2.MORPH_TOPHAT, kernel)
cv2.imshow("Original", img)
cv2.imshow("Top Hat", tophat)
cv2.waitKey(0)
cv2.destroyAllWindows()
```

Ln: 10 Col: 0

Top Hat.png