Real-time object detector

User Manual

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Acknowledgements

- **A small vote of thanks for all who have helped me in this journey of App Development – my parents, Ms. Mani, & Dr. Ken Khan**

About Me..

- Student's Photograph

- Mrithika Sundar
- Age: 17
- 12th Grade
- California, USA
- Favorite subjects:
  - Math
  - Physics

About My Internship Journey with Clevered..

- **Any photographs from sessions etc.**

- **Coding in python**
- **Coding from scratch**
- **Understanding how object detection works**

About App..

- **App's Main Menu**

```
import cv2
import numpy as np
import tkinter as tk
from tkinter import messagebox
from threading import Thread
net = cv2.dnn.readNet("C:/Users/mrith/Downloads/yolov4.weights", "C:/Users/mrith
# loading yolo
layer_names = net.getLayerNames()
output_layers = [layer_names[i - 1] for i in net.getUnconnectedOutLayers()]
with open("C:/Users/mrith/Downloads/coco.names", "r") as f:
    classes = [line.strip() for line in f.readlines()]
cap = None
running = False
def start_detection():
    global cap, running
    if not running:
        running = True
        cap = cv2.VideoCapture(0)
        detect_objects()
def stop_detection():
    global cap, running
    running = False
    if cap:
        cap.release()
    cv2.destroyAllWindows()
def detect_objects():
    global cap, running
    while running:
        ret, frame = cap.read()
        if not ret:
```

- **Identifies objects place in front of webcam in real time**

How do I use the App?

How to use?

1. **Turn on webcam**
2. **Display any object in front of it**
3. **System should detect!**

Option Name(This will be repeated for each option of the App)

- **Screenshot/ Pic of each option/screen of the App**

How to use?

1. **Turn on webcam**
2. **Display any object in front of it**
3. **System should detect!**

Dependencies:

- **Created using Python**
- **Not supported by Google Collab**
- **Must need webcam & good internet**

Demo Video

Demo any 2 features/ functions/ options of your project. Make a recording of the same and attach here as a backup if needed

Toolkit Walkthrough

Toolkit

Contact

- **Please reach out if you have any questions!**
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Thank you!