

Real-Time Object Detection with YOLO

■ Description

This repository shows how to perform real-time object detection on images and videos using the Ultralytics YOLO model and OpenCV. It includes utilities for:

- Detecting and displaying annotated bounding boxes on still images
- Processing video files frame by frame, annotating detections, and saving the result
- (Optional) Mounting Google Drive in Colab to load/store data

■ Features

- Image Detection: Run inference on a single image and visualize/save the annotated result.
- Video Detection: Read an input video, perform frame-by-frame detection, and write an annotated video.
- Easy Setup: One-line pip install for dependencies.
- Google Colab Compatible: Helper to mount Google Drive.

■■ Requirements

- Python 3.7 or higher
- opencv-python
- ultralytics (YOLO)
- matplotlib

■■ Installation

Clone this repo: `git clone`

`https://github.com/your-username/realtime_objectdetect_video.git && cd realtime_objectdetect_video`

Install dependencies: `pip install opencv-python ultralytics matplotlib`

Download or train a YOLO model (e.g., yolo12n.pt) and place it at the repo root.