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# SNAPDETECT

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BY: NOOR-UL-HUDA

## Introduction

**SnapDetect** is a comprehensive and intuitive application designed for real-time object detection and image processing. Leveraging the power of the YOLO (You Only Look Once) algorithm, SnapDetect provides a seamless experience for detecting objects in both static images and live video feeds. Additionally, it offers a wide range of image filters to enhance and modify your visuals effortlessly.

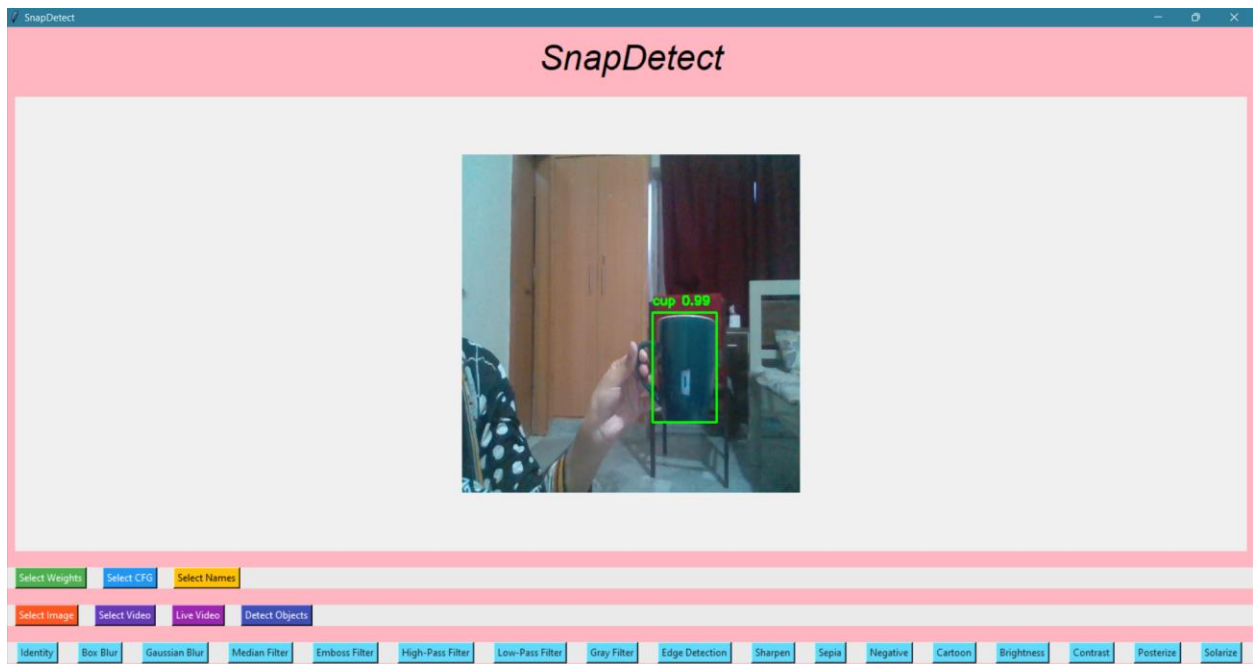
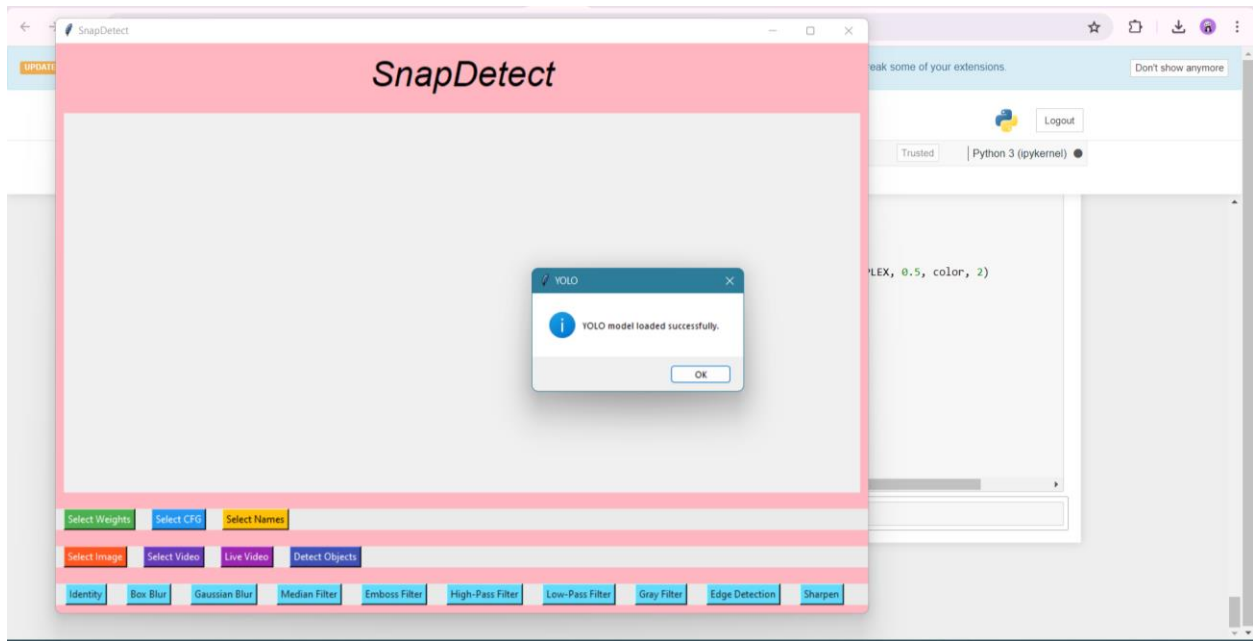
## Key Features

- **Object Detection:** Utilize the YOLO algorithm to detect and identify objects in images and videos with high accuracy. SnapDetect supports various pre-trained YOLO models for a wide range of object classes.
- **Real-Time Video Processing:** Choose between processing static images or streaming live video from your webcam. SnapDetect's real-time capabilities ensure that you can analyze and act upon visual data instantaneously.
- **Versatile Filters:** Apply a variety of filters to your images and videos. From basic adjustments like brightness and contrast to more advanced filters like edge detection, cartoon effects, and sepia tones, SnapDetect gives you the tools to transform your visuals creatively.
- **User-Friendly Interface:** The application features an easy-to-navigate interface with buttons for selecting YOLO models, images, videos, and applying filters. The design ensures that even users with minimal technical expertise can operate the app efficiently.

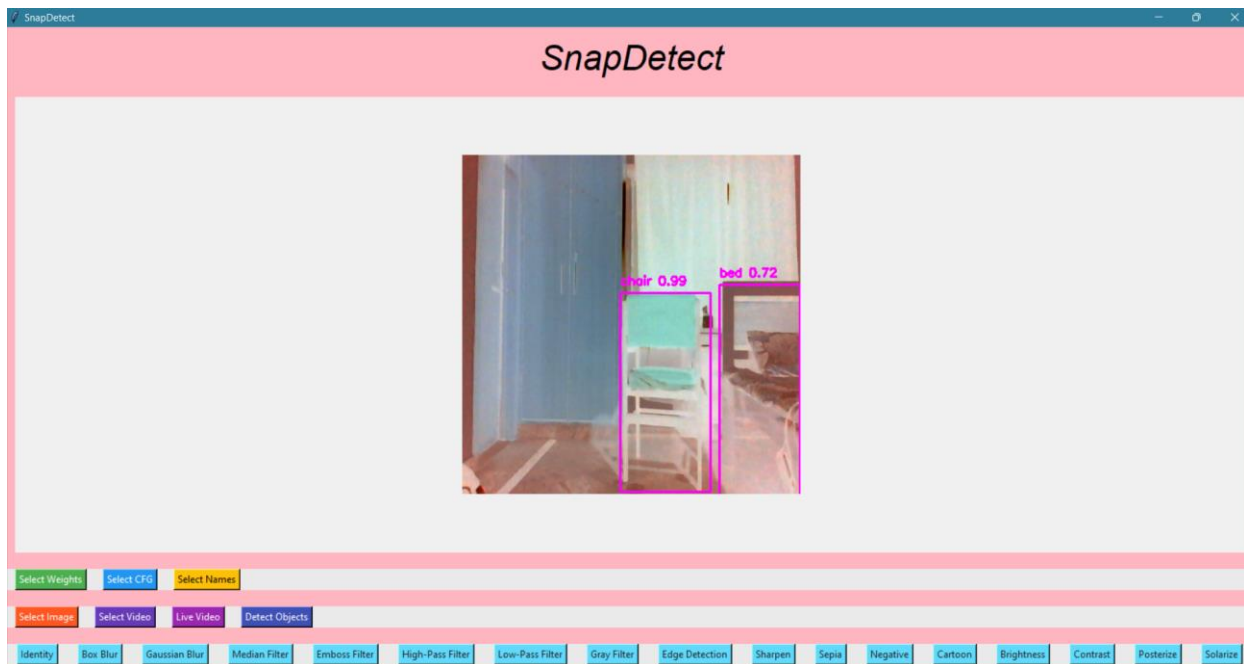
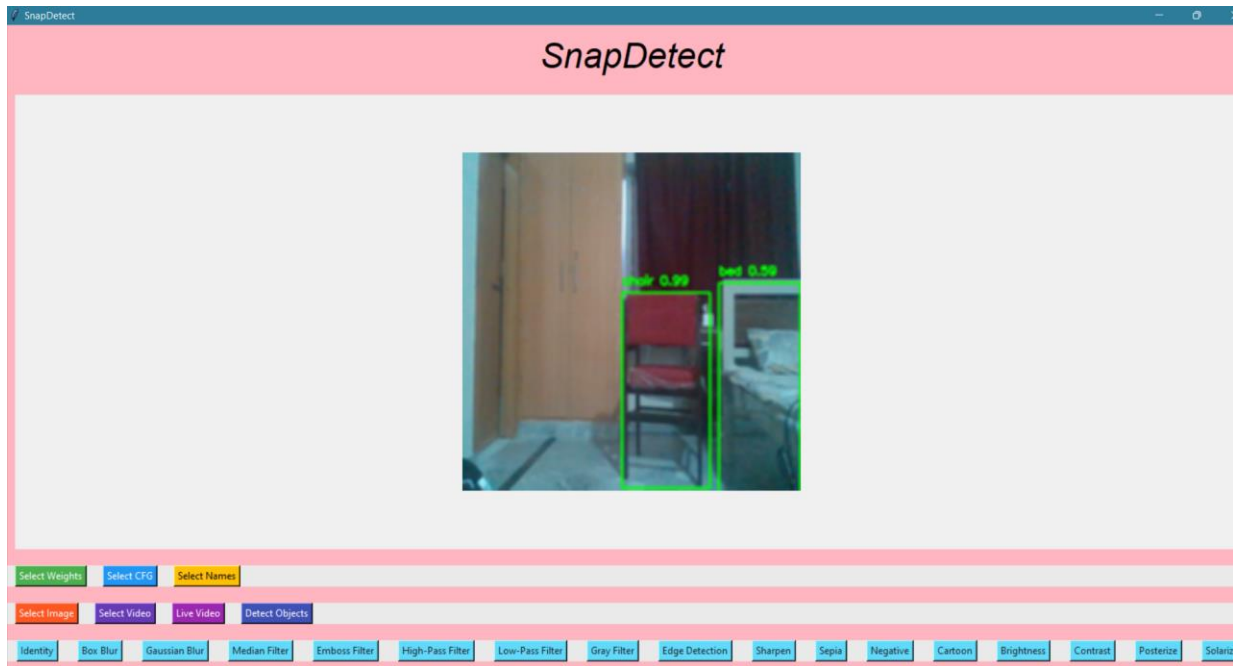
## How It Works

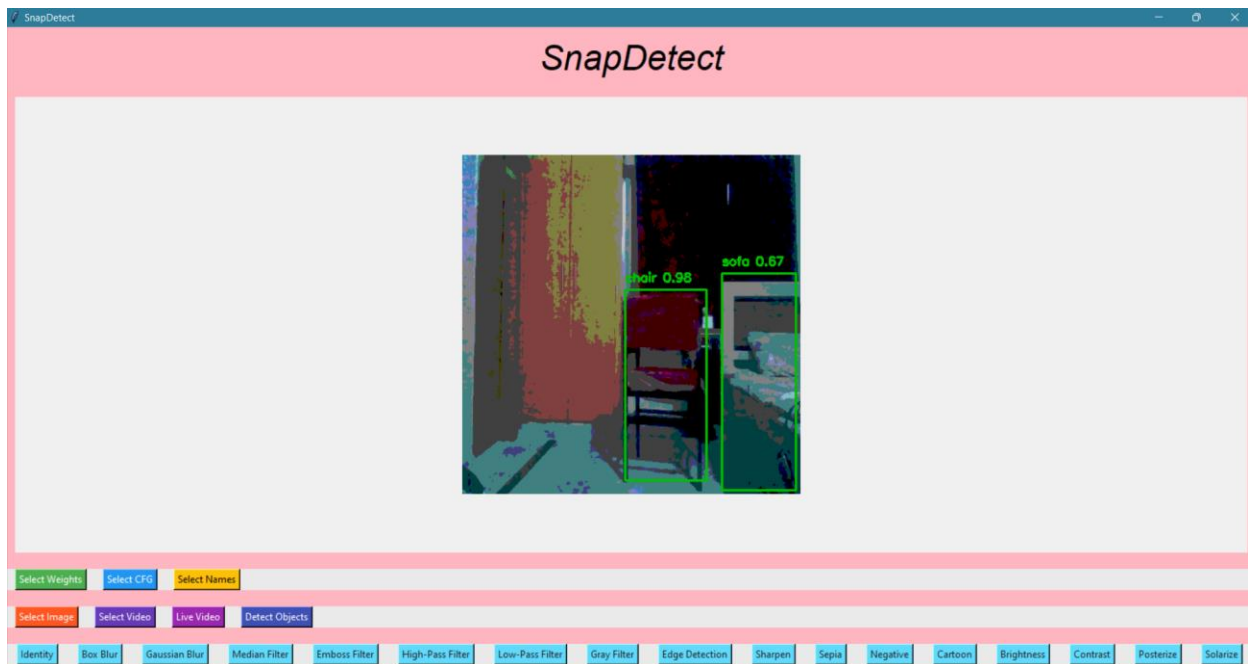
1. **Load YOLO Model:** Start by selecting your YOLO model files (weights, config, and class names). SnapDetect loads the model and prepares it for object detection.
2. **Select Image or Video:** Choose an image from your file system or select a video file to process. You can also toggle live video from your webcam for real-time object detection and filtering.
3. **Apply Filters:** Enhance your images or videos using a wide range of filters. The filters include options for blurring, sharpening, embossing, edge detection, and more.
4. **Object Detection:** Activate the object detection mode to overlay bounding boxes and labels on detected objects within your visuals.
5. **View Results:** The processed images or videos are displayed in the application window, allowing you to review and save your results.

## LIVE VIDEO:



## Now Applying Filters:





## FILTERS ON UPLOADED IMAGE:

