HumanoidX Makeaton

Intelligent Programing

Approch –

In deep learning there are many training problems and we chose **YOLO -V8** to solve our problem statement.

Checkpiont-1 :

Using labellmg to create a labels for the dataset(we used about 450 imgs) and based on the images and label folder->label.txts

Checkpoint-2:

we created an custom deep learning to run and analyse any images and videos present in the directory.

Checkpoint-3:

As now we can make prediction on any images or videos present in the folder. We tried to implement the model to get real time analysis and get feedback using a webcam (refer **screenshots** file).

Checkpoint-4:

Solve the problem statements to get the count of number of harmful and harmless objects present in the image

Checkpoint-5:

Apply segmentation to moniter the harmful objects and focus on them.

Overall progress –

We were able get t**ill checkpoint-4** completed in which differentiate between harmful and harmless objects and count number of harmful objects in the images or videos present in the directory and as well as get realtime count of objects shown in the wecam (please refer the **screenshots file**)

Overall learning-

We got to understand the yolo->you only look once algorithm and its ideology and working and implementation as to how it train and predict creating a custom model and implement to test the model which provides graphs and values of overall accuracy and speed to to make improvements in our model to get more better analysis.

Our Deep Learning model analysis-