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Task : Yolo v4 Repository Optimization

Today I have studied three python files from yolo v4 repository .

1. Dataset.py
2. Train.py
3. Utils.py

Dataset.py file contains full of how dataset will loaded and pre-processed for yolo v4 model training.

First it will take annotation path as arguments and loaded image with corresponding annotations.

According to batch size , it loaded annotations and this will send to train.py file.

Train.py file is used for training and testing trained yolo v4 model.

First it will load the Yolo v4 architecture and applies pre-trained weights to its layers. After that , Frozen layer are identified and set it to non-trainable.

TensorFlow's keras Input function is used to set input image size(416) and map the input and output tensors.

After the forward propagation, loss is calculated and optimized with optimizer. The predicted bounding box will be applied original image with help of detect.py.

Utils.py file contains some additional functions like IOU calculation , load cfg file , load weights etc.

<https://github.com/theAIGuysCode/tensorflow-yolov4-tflite.git>