بسمه تعالی

Quick Start

1. Python set-up

```
$ pip install -r requirements.txt
```

2. Install pytorch

   If you want to use the NVIDIA GeForce RTX GPU with PyTorch, please check the instructions at pytorch installing guide.

3. Training

   - For training, create a folder named “LP”. LP folder should have this format:
     |--LP
     |--images
     |--train
     |--test
     |--labels
     |--train
     |--test
   - After creating dataset for training, run this command:
     python train.py
   - Your can see your training result under “runs/train” folder.
   - Replace your “best.pt” weight with “LP.pt” under wights folder.

4. Inference

   - For inference, you only need to import inference.py and call detect function and pass path of the image into it:

```
from Inference import detect
LP=detect("lp4.jpeg")
```

Codes

|--models

|--utils

|--weights

|-- inference.py

|--requairments.txt

|_ train.py

- models: the necessary files for YOLOv5 model for license plate detection and training. E.g., conv layers.
- utils: functions for summarize inference and train.
- weights: trained weight for car and plates.
- inference.py: contains an “detect” function for inference. Returns a list of detected license plate
- requairments.txt: requirements package for running
- train.py: file for training and configs