To Do:

1. Create a way to measure & visualize Metrics of Model

Accuracy, Recall, F-1 Score, etc for both the RPN & RCNN

RPN: (Region Proposal Network)

RCNN: (Region-based Convolutional Neural Network)

1. Create 2nd NN to read Text within the bbox candidate results from 1st NN
2. Implement new LPDataSet structure to comply with new dataset format

filename,min\_x,min\_y,max\_x,max\_y,class => filename,width,height,class,xmin,ymin,xmax,ymax

1. Implement Data Augmentation for Images during training
   * Flip Horizontal/Vertical
   * Brightness
   * Noise
   * Random Crop
   * Blur
   * Shear
2. Create a Model Prediction Script
   * take in photo print out LP text
3. Create App-to-Model Interface
   * send photo from app to model, then model returns LP Text prediction to App
4. Create Model Runner with CLI Args for params
   * Possible Args:

training or eval mode

weights load\_from dir

weights save\_to dir

print output of # of sample predictions

print or view metrics

print status every X epochs