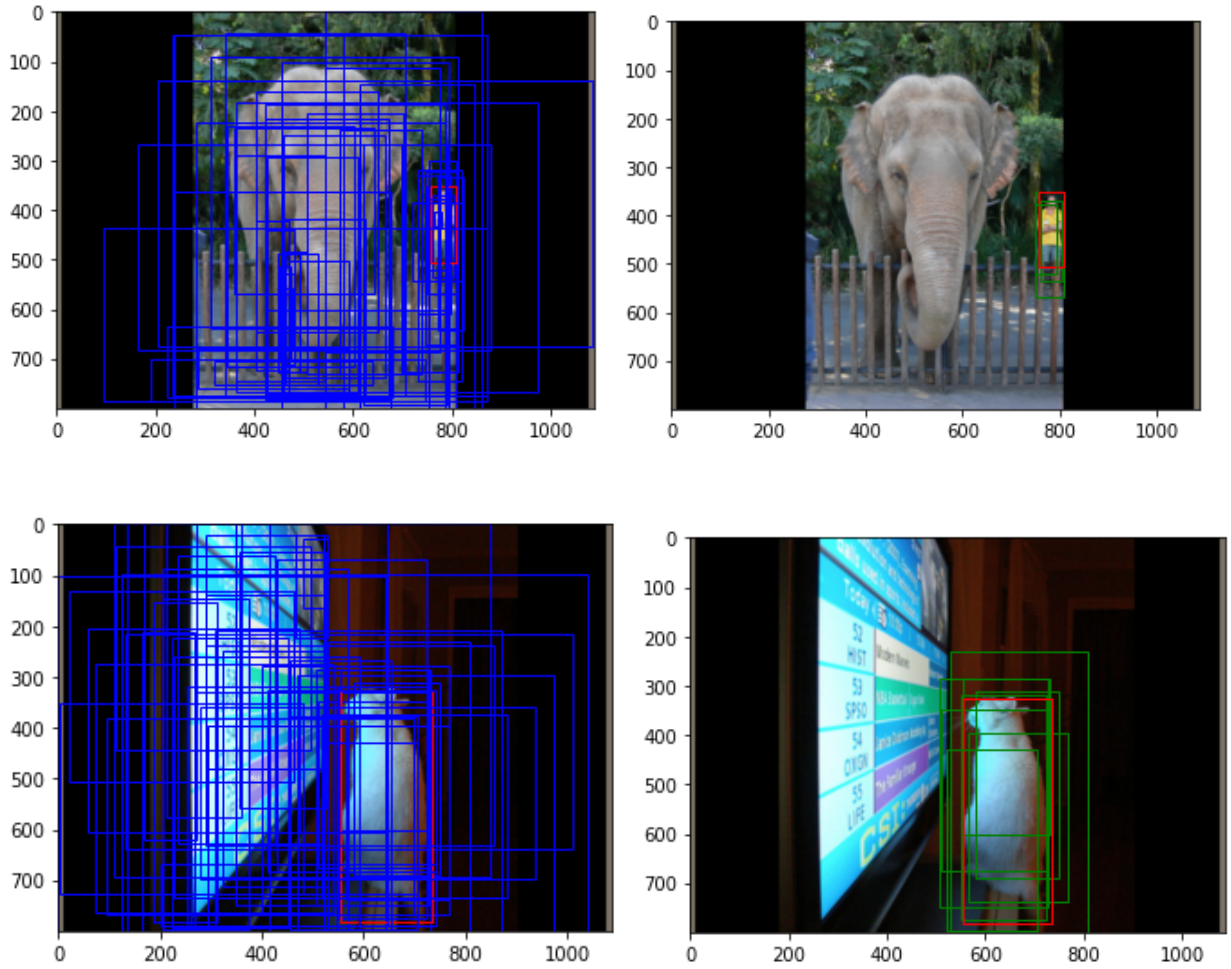
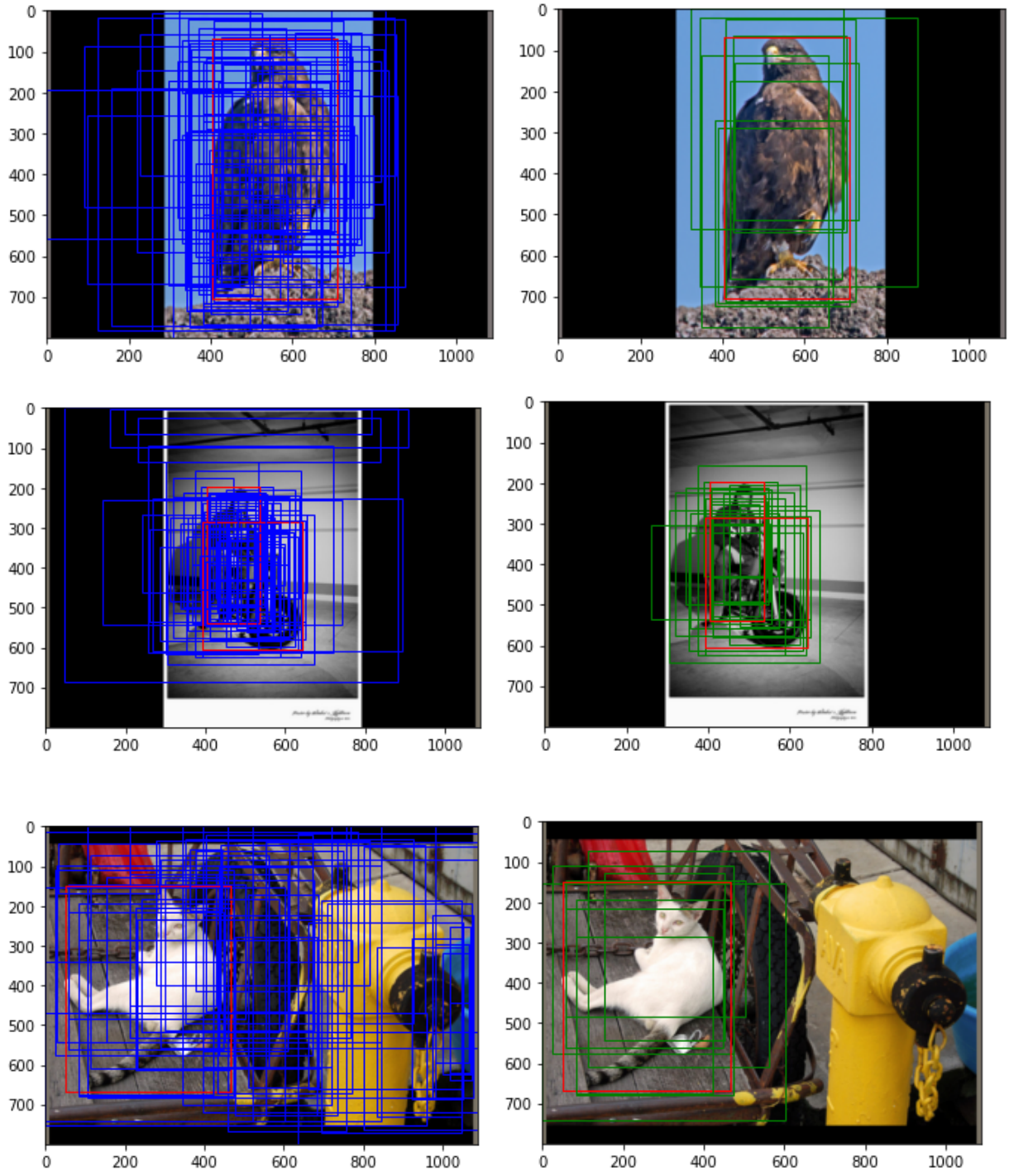
Faster RCNN Report

By Ruchi Gupte, Ishani Mhatre

Top 50 proposals (in blue) with ground truth bounding boxes (in red) along with no background classes(in green):




0
100
200
300
400
500
600
700
0
200
400
600
800
1000

1. Training and Validation curves that show the total loss, the loss of the classifier and the loss of the regressor of the Box Head.

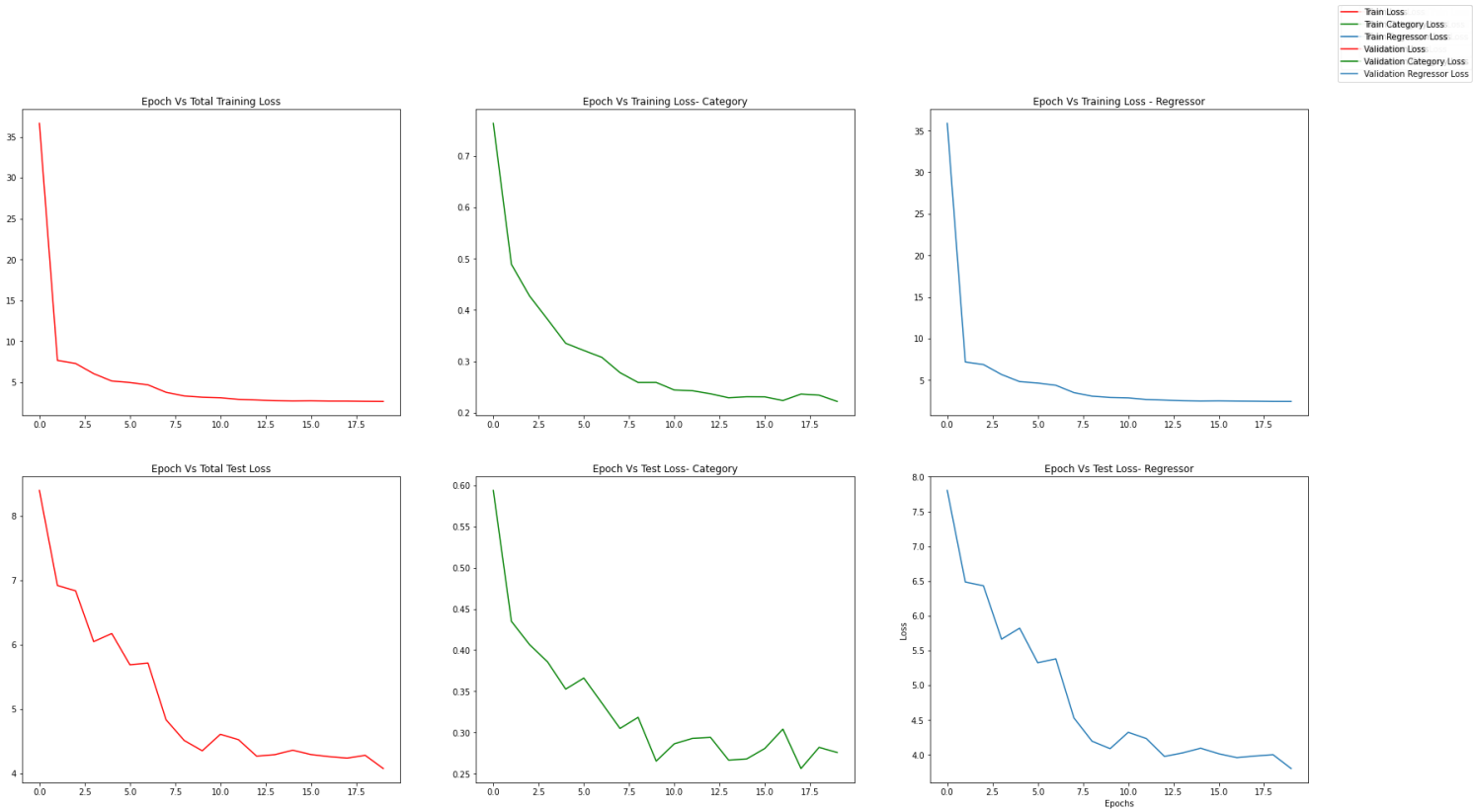


Image plots that contain the top 20 boxes produced by the Box Head for some images of the test set.

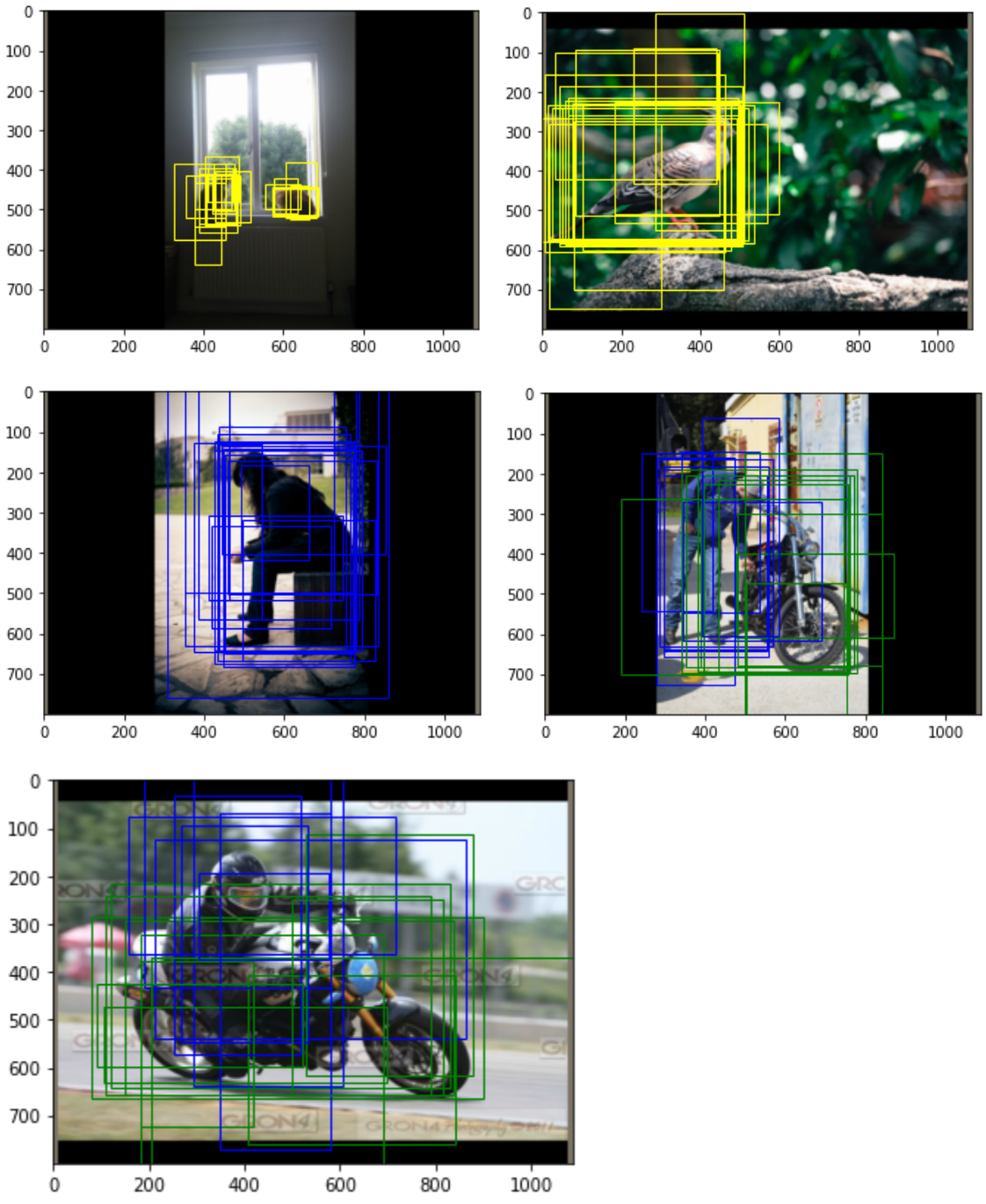
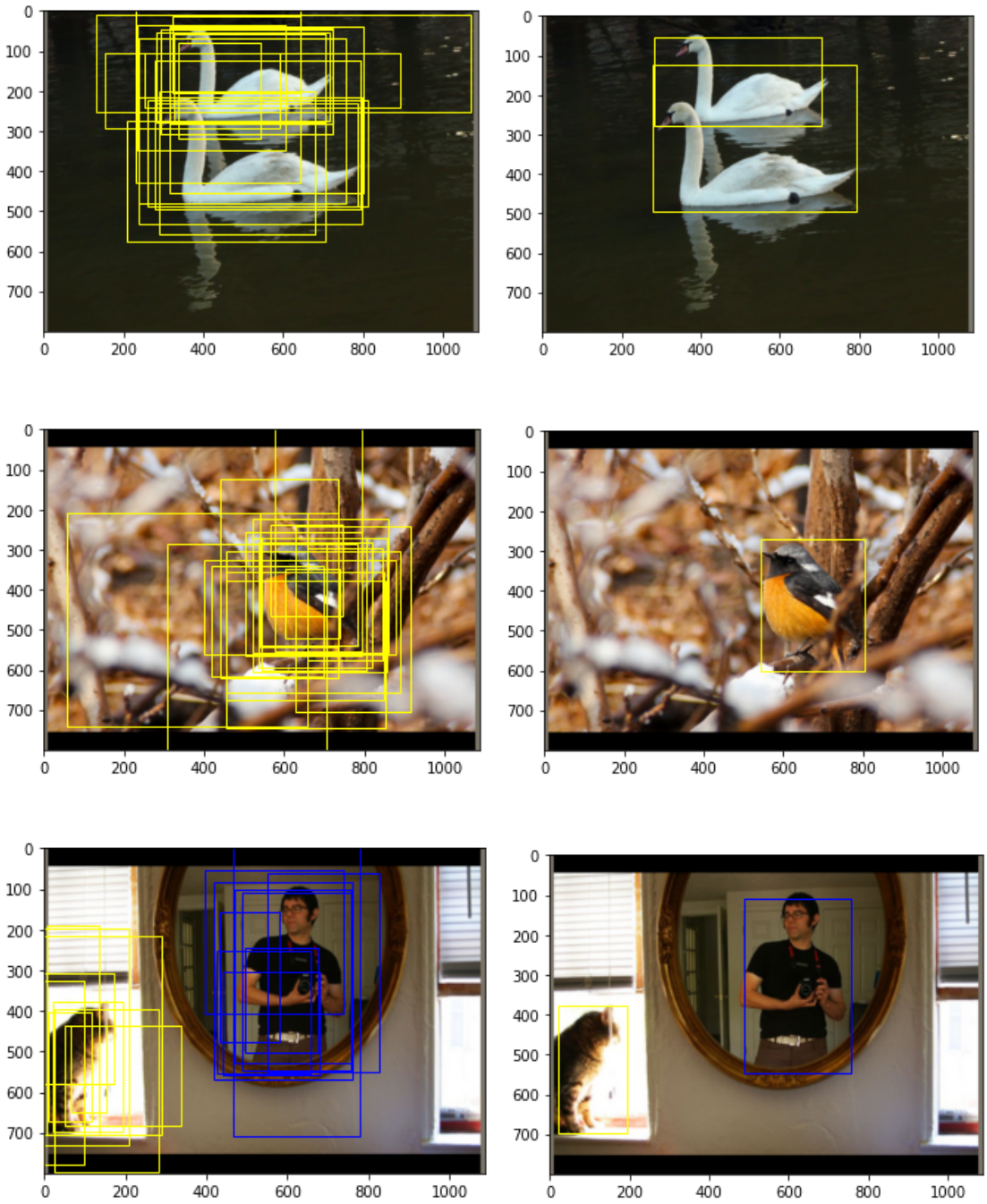
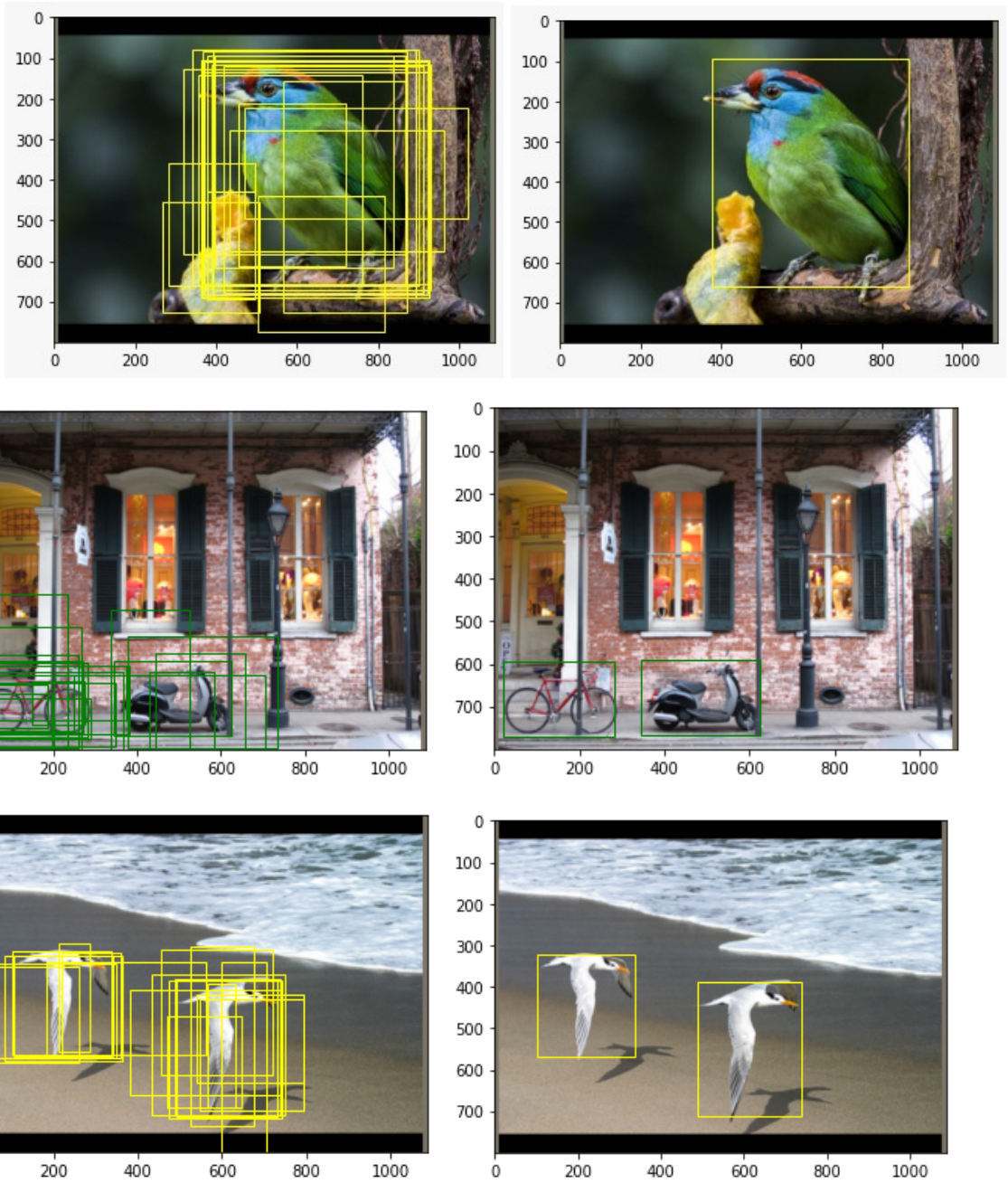


Image plots of the regressed boxes after the postprocessing.





Brief explanation about specific choices of the implementation that were not mentioned in the rest of the report

Used a learning rate of 0.01 with lr scheduler, Batch size = 2, Effective batch size=32, L = 10 Tried multiple hyperparameters to reduce the loss on validation data. Loss decreased almost monotonically on the train data. Used Matrix NMS for obtaining best proposals after post processing. Trained for 20 epochs with 80-20 train-test split.