COSC6373 Computer Vision HW 3 Report

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1) Prepare the dataset for training: read xml file and images, rotated the images based on the xml space angle then crop the roi. I created a training dataset with 14000 positive samples and 10000 negative samples based on the sunny dataset. And I created a testing dataset contained 3500 positive samples and 2500 negative samples based on the cloudy dataset. Train : Test = 80% :20%

2)Feed positive samples and negative samples to training cascade with sets of parameters.

Set 10 experiments(1-5 for LBP; 6-10 for Haar and change numStages, minHitRate, maxFalseAlarmRate respectively):

#1 -numPos 6000 -numNeg 10000 -numStages 20 -minHitRate 0.999 -maxFalseAlarmRate#0.5 -w 24 -h 24 -mode ALL -precalcValBufSize 1024 -featureType LBP

#2 numPos = 5000 LBP

#3 numStages = 10 LBP

#4 minHitRate = 0.8 LBP

#5 maxFalseAlarmRate = 0.4 LBP

#6 featureTYpe=HAAR others parameters are as same as 1

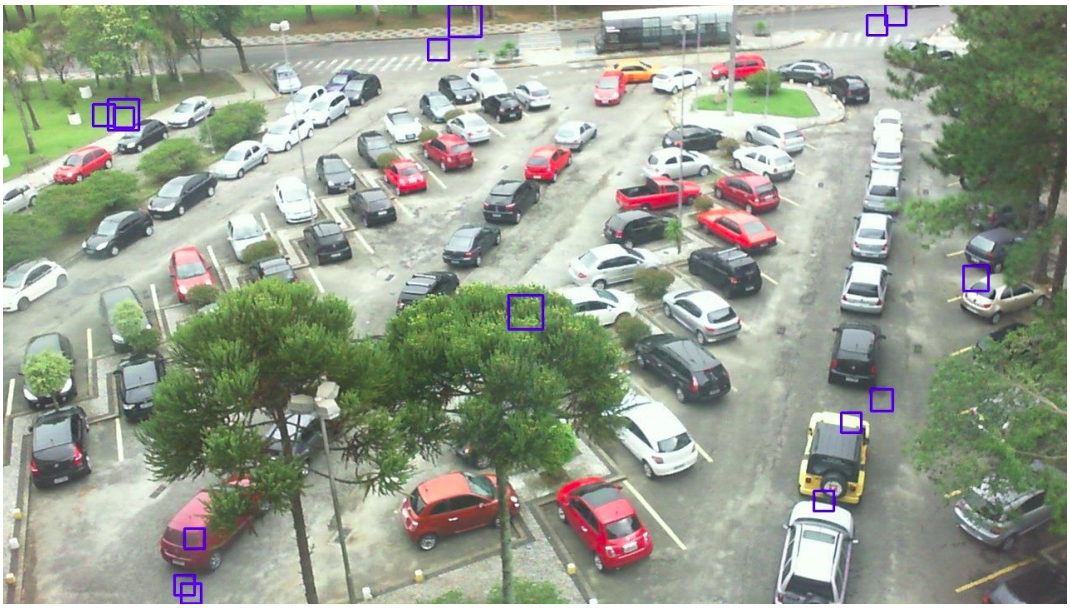
#7 featureTYpe=HAAR others parameters are as same as 2

#8 featureTYpe=HAAR others parameters are as same as 3

#9 featureTYpe=HAAR others parameters are as same as 4

#10 featureTYpe=HAAR others parameters are as same as 5

3) Use images from rainy and cloudy datasets to test these classifiers.



4) Analysis the parking slots.

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