Image Classification Write Up

Classifier for Images

Background

Image based search is slowing gaining popularity as shoppers increasingly use their mobile phone for shopping. At Home Depot, products are listed under a hierarchical category structure inside the Product Catalog. This helps customers in browsing the website as they can navigate to the category of interest. Searching for products under the category of interest increases relevancy which in turn improves conversion.

Problem Description

For image search, the first task will be to look at an image and classify it into its category. Each image will belong to one of the 6 categories -

- Chandeliers
- Shower heads
- Ceiling Fans
- Vanity Lighting
- Floor Lamps
- Single Handle Bathroom Sink Faucets

Training Data

Data

Images will be provided in JPEG format under "*train/*" directory.

Labels

The category for each image is in the file Xy_train.txt in the format below -

```
imageId|category
```

Testing

You will run your model with a set of test image in the folder "*test/*" and give us the predicted label (category)

Input

The input to your classifier will be a folder with image files "*test/*" just like the training data files. This is your test data

Output

The output of your classifier should be a text file in the format -

Your output file will have the same format as the training file -

```
imageId|category
```

Scoring

Scoring will be based on accuracy of your classifier over the test images data set and will be calculated as -

Number of test images correctly classified / *Total number of test images*