DOG RECOGNITION APP

Step 0 - Convolutional Neural Network

1. Dataset of dogs
2. Get labeled dataset (Stanford dog dataset or kaggle set)
3. Getting unlabeled dataset of dogs
4. Build a neural network to label the unlabeled data
   1. Take a look at Keras <https://keras.io/>. The 30 sec quick start is a good place to look at how a basic NN is created.
   2. I’ll send a file to you guys regarding a sample CNN. We can do something like that. ( have sent it.. Check it out to! It's easy to create a )
5. Correctly identified labeled data can then be added to our dataset

Data Available -

<http://vision.stanford.edu/aditya86/ImageNetDogs/>

=> 20,580 images

=> 120 categories of dogs

<https://www.kaggle.com/c/dog-breed-identification>

Readme

Stanford Dogs Dataset  
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For more information about the dataset, please visit the dataset website:  
 http://vision.stanford.edu/aditya86/ImageNetDogs/  
  
If you use this dataset in a publication, please cite the dataset as  
described on the website.  
  
File Information:  
 - images/  
 -- Images of different breeds are in separate folders  
 - annotations/  
 -- Bounding box annotations of images  
 - file\_list.mat  
 -- List of all files in the dataset  
 - train\_list.mat  
 -- List and labels of all training images in dataset  
 - test\_list.mat  
 -- List and labels of all test images in dataset  
  
Train splits:  
 In order to test with fewer than 100 images per class, the first  
 n indices for each class in train\_list.mat were used, where n is  
 the number of training images per class.  
  
Features (train\_data.mat, test\_data.mat):  
 - train\_data/test\_data  
 -- contains the feature matrix after histogram intersection kernel has been applied  
 - train\_fg\_data/test\_fg\_data  
 -- contains the feature matrix before applying the histogram intersection kernel  
 - train\_info/test\_info  
 -- contains the labels and ids for the corresponding image in the feature matrix  
  
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