Bag-of-Words based Image Classification

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1 Approach

We have extracted key point sift features and dens sift features for the following colorspaces: {rgb, RGB, pop, grey}. For key point features we extracted sift features in each color space independently and aggregated these. For dens sift sampling we used a bin size of 10 pixels and step size of 5. The dens sift for different colorspaces was also aggregated. The clustering is done over all features found in a given colorspace, and for a

2 Evaluation

1. Keypoint SIFT vs. dense sampling SIFT
2. Different SIFTs (i.e. grey, RGB, rgb, Opponent)
3. Different Vocabulary sizes
4. Number of training samples
5. kernel choice for SVM

Please, make a simple document with four ranked lists of test images as discussed in Section 2.6. This document should also contain all your settings (size of visual vocabulary, number of positive and negative samples, and so on), Average Precision per class, and Mean Average Precision.

3 Evaluation

1. Different sifts over training size
2. Different sift over vocabulary size
3. Different kernel choices for best sift over vocabulary size