Abstract

This work of multi-relation image retrieval and annotation is based on the holistic approach and the decision tree. In this we have proposed that for the retrieval of similar images as that of query image Dominant color descriptor (DCD) is used, this descriptor uses the color feature for the retrieval of images. This creates the feature vector index. Test keywords are correlated with the feature vector index, the correlation is performed by multi class association to get the classes for processing on them. Classes which are not necessary are discarded using cross validation in the decision tree process. Decision tree used to take the relevant classes and finally we calculate the Gain of feature vector and we get the retrieval of the images based on the query image with the associated keywords or annotation. This work has been implemented on MatLab 7.5 simulator.

References

- Fuming Sun, Yong Ge, Dongxia Wang and Xueming Wang “A Collaborative Approach for Image Annotation” 2010 IEEE
- Bo Li, Hong Li, Min Wu, Ping Li “Multi-label Classification based on Association Rules with Application to Scene Classification” 2008 IEEE
- Ran Li, YaFei Zhang, Zining Lu, Jianjiang Lu, Yulong Tian, “Technique of Image Retrieval based on Multi-label Image Annotation” 2010 IEEE
- Ameesh Makadia, Vladimir Pavlovic, and Sanjiv Kumar, “A New Baseline for Image Annotation” Google Research, New York, NY, Rutgers University, Piscataway, NJ
- Peng Huang, Jiajun Bu, Chun Chen, Kangmiao Liu, Guang Qiu “Improve Image Annotation by Combining Multiple Models”, 2008 IEEE
- Jens-Rainer Ohm, Leszek Cieplinski, Heon Jun Kim, Santhana Krishnamachari, B. S. Manjunath, Dean S. Messing, Akio Yamada “The MPEG-7 Color Descriptors”
- Hong Shao, Yueshu Wu, Wencheng Cui, Jinxia Zhang “Image Retrieval Based on MPEG-7 Dominant Color Descriptor”, The 9th International Conference for Young Computer Scientists, 2008 IEEE
- Zhiping Shi & Xi Liu & Qingyong Li & Qing He & Zhongzhi Shi, “Extracting discriminative features for CBIR”, Springer Science Business Media, LLC 2011

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