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Authors:

M. Kalaiselvi

M. Malathi

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Abstract

Fast retrieval of images from database is done by unsupervised image categorization technique. CBIR effectiveness is based on the image categorization. For image categorization technique, the image features are extracted by using Scale Invariant Feature Transform (SIFT). Image Categorization and Content-Based Image Retrieval (CBIR) allows automatic extraction of target images according to object feature contents of the image itself. Haar Transform is used to decompose color images into multilevel scale. D4 wavelet Transform is used for the conversion of wavelet coefficients. A progressive image retrieval strategy is achieved by flexible CBIR. In terms of recall rate and retrieval speed, the retrieval performance of D4 and

Haar wavelet is compared with its wavelet histograms. Efficient retrieval can be achieved experimentally and the results can be reflected in the form of CBIR wavelets. Image Retrieval system is a system for searching and retrieving similar images from a large database of digital images. Images are ranked based on their similarities.

Refer

ences

- Chum O and Zisserman A, "An Exemplar Model for Learning Object Classes," Proc. IEEE Conf. Computer Vision and Pattern Recognition, 2007.
- Csurka G, Bray C, Dance C, and Fan L, "Visual Categorization with Bags of Keypoints," Proc. European Conf. Computer Vision Workshop Statistical Learning in Computer Vision, 2004.
- Fergus R, Perona P, and Zisserman A, "Object Class Recognition by Unsupervised Scale-Invariant Learning," Proc. IEEE Conf. Computer Vision and Pattern Recognition, 2003.
- Fei-Fei L, Fergus R and Perona P, "Learning Generative Visual models from Few Training Examples: An incremental Bayesian Approach Tested on 101 Object Categories ", proc. IEEE Int'nal Conf. Computer Vision and pattern recognition Workshop Generative-Model based Vision, 2004.
- Griffin G, Holub A, and Perona P, "Caltech-256 Object Category Dataset," technical report, California Inst. of Technology, 2007.
- Kim G, Faloutsos C, and Hebert M, "Unsupervised Modeling of Object Categories Using Link Analysis Techniques," Proc. IEEE Conf. Computer Vision and Pattern Recognition, 2008.
- Lee Y. J and Grauman K, "Shape Discovery from Unlabeled Image Collections," Proc. IEEE Conf. Computer Vision and Pattern Recognition, 2009.
- Lowe D. G, "Distinctive Image Features from Scale-Invariant Key points," Int'nal J. Computer Vision, vol. 60, no. 2, pp. 91-110, 2004.
- Yuchi Huang, Qingshan Liu, Fengjun Lv, "Unsupervised Image Categorization by Hypergraph Partition," IEEE Trans. Pattern Analysis and Machine Intelligence, vol 33, no. 6, pp. 1266-1273, 2011.
- Zhu L, Chen Y, and Yuille A, "Unsupervised Learning of a Probabilistic Grammar for Object Detection and Parsing," Advances in Neural Information Processing Systems 19, B. Schoelkopf, J. Platt, and T. Hoffman, eds. , MIT Press, 2007.
- Zhu L, Chen Y and Yuille A, "Unsupervised Learning of Probabilistic Grammar-Markov Models for Object Categories", IEEE Trans. Pattern Analysis and Machine Intelligence, vol 1, pp. 114-128, 2009.
- Quillec, G. ; Lamard, M. ; Cazuguel, G. ; Cochener, B. ; Roux, C, "Fast wavelet-Based Image Characterization for Highly Adaptive Image Retrieval", Proc. IEEE Transaction on Image Processing, volume 21, issue:4, pp. 1613-1623, April 2012.
- Ghanem, S. M. ; Ismail, M. A. ; Omar, S. G. "System Design of a Super-peer Network For Content-Based Image Retrieval", Proc IEEE 10th International Conference on Computer And Information Technology, pp. 2486-2493, 2010.
- Y. Liu, D. D. XU, I. W. Tsang, and J. Luo, Textual Query Of Personal photos facilitated

by large-scale web data, "IEEE Trans. pattern Anal,Mach. Intell. , vol. 33,no. 5,pp. 1022-1036,May 2011.

Computer Science

Index Terms

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Keywords

Content Based Image Retrieval (cbir) Scale Invariant Feature Transform (sift) Image Features

Haar Wavelet And D4 Wavelet