

SIFT and Perceptual Zoning Applied to CBIR Systems

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Abstract : This paper contributes to the CBIR systems applied to trademark retrieval. The proposed model includes aspects from visual perception of the shapes, by means of feature extractor associated to a non-symmetrical perceptual zoning mechanism based on the Principles of Gestalt. Thus, the feature set were performed using Scale Invariant Feature Transform (SIFT). We carried out experiments using four different zonings strategies ($Z = 4, 5H, 5V, 7$) for matching and retrieval tasks. Our proposal method achieved the normalized recall (R_n) equal to 0.84. Experiments show that the non-symmetrical zoning could be considered as a tool to build more reliable trademark retrieval systems.

Keywords : CBIR, Gestalt, matching, non-symmetrical zoning, SIFT

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