

基于哈希技术的 BoVW 图像检索

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摘要: 本文提出了一种基于哈希技术的 BoVW 图像检索方法.选择合适的生成二进制哈希码的哈希算法, 将局部特征点保持相似性地映射为二进制哈希码.再在二进制哈希码上进行 k-means, 生成视觉词为二进制码的视觉词典.最后, 用视觉单词的词频向量表示图像内容, 并根据词频向量对图像进行检索.实验结果表明, 该方法可以缩短视觉词典生成的时间, 占用更少的存储空间.

关键词: 二进制哈希码; 视觉词袋模型; 二进制视觉词典; 图像检索

Image Retrieval Based on BoVW and Hashing

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Abstract: Currently, this paper propose an image retrieval method based on BoVW and hashing. Firstly, select an appropriate binary hashing algorithm, which map the similar local feature points into similar binary hash codes. Second, play k-means on the binary hash codes and generate the visual vocabulary with binary visual word. Finally, the image is represented with the word frequency vector of visual words, and image retrieval is achieved based on the word frequency vector. Experimental results on SIFT-1M and Caltech-256 data sets show that the proposed method can reduce the visual vocabulary generation time and take up less storage space.

Key words: binary hashing code; bag of visual word model; binary visual vocabulary; image retrieval

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