BoVW model for animal recognition: an evaluation on SIFT feature strategies

ABSTRACT

Nowadays classifying images into categories have taken a lot of interests in both research and practice. Content Based Image Retrieval (CBIR) was not successful in solving semantic gap problem. Therefore, Bag of Visual Words (BoVW) model was created for quantizing different visual features into words. SIFT detector is invariant and robust to translation, rotations, scaling and partially invariant to affine distortion and illumination changes. The aim of this paper is to investigate the potential usage of BoVW Word model in animal recognition. The better SIFT feature extraction method for pictures of the animal was also specified. The performance evaluation on several SIFT feature strategies validates that MSDSIFT feature extraction will get better results.