An Evaluation of an Object Recognition Schema Using Multiple Region Detectors

Robust object recognition is one of the most challenging topics in computer vision. In the last years promising results have been obtained using local regions and descriptors to characterize and learn objects. One of these approaches is the one proposed by Lowe. In this work we compare different region detectors in the context of object recognition under different image transformations such as illumination, scale and rotation. Additionally, we propose two extensions to the original object recognition scheme: a Bayesian model that uses knowledge about region detector robustness to reject more unlikely hypotheses and a final verification process to check that all final hypotheses are coherent to each other.

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