

Task 02: Learning Multi-scale Block Local Binary Patterns for Face Recognition

A facial recognition system is a technology potentially capable of matching a human face from a digital image or a video frame against a database of faces. Face recognition from images has been a hot research topic in computer vision for recent two decades. This is because face recognition has potential application values as well as theoretical challenges. Many appearance-based approaches have been proposed to deal with face recognition problems. Holistic subspace approach, such as PCA and LDA based methods, has significantly advanced face recognition techniques. Proposed Multiscale Block Local Binary Pattern (MB-LBP), and apply it to face recognition to overcome the limitations of LBP. In MB-LBP, the computation is done based on average values of block subregions, instead of individual pixels. Proposed Multiscale Block Local Binary Pattern (MB-LBP), and apply it. The proposed method is evaluated on two 2D experiments of FRGC: Experiment 1 and Experiment 2. Experiment 1 is designed to measure face recognition performance on frontal facial images taken under controlled illumination. In this experiment, only one single controlled still image is contained in one biometric sample of the target or query sets. Experiment 2 measures the effect of multiple Learning MB-LBP for Face Recognition 835 still images on performance. In Experiment 2, each biometric sample contains four controlled images of a person taken in a subject session. There are 16 matching scores between one target and one query sample. The Multi-scale Block Local Binary Patterns (MB-LBP) use sub-region average gray-values for comparison instead of single pixels. Feature extraction for MB-LBP is very fast using integral images. Considering this extension, uniform patterns may not remain the same as those defined by Ojala. MB-LBP can be viewed as a certain way of combination using 8 ordinal rectangle features, future work combining eight or more ordinal features in a circular instead of rectangle features. MB-LBP code presents several advantages: (1) It is more robust than LBP; (2) it encodes not only microstructures but also macrostructures of image patterns, and hence provides a more complete image representation than the basic LBP operator; and (3) MB-LBP can be computed very efficiently using integral images. From this paper we came to know that they want to upgrade their paper on LBP and they have done this successfully so, this paper may help to know about how to recognize face in upgrading way and also have significant work in future.