GABOR FACE CLUSTERING USING AFFINITY PROPAGATION AND STRUCTURAL SIMILARITY INDEX

Issam Dagher[1], Sandy Michael[1], and Oubaida Alkhalil[1]

[1]Affiliation not available

May 5, 2020

Abstract

Clustering is an important technique in data mining. It separates data points into different groups or clusters in such a way that objects in the same group are more similar to each other in some sense than with the objects in other groups. Gabor face clustering using affinity propagation and structural similarity index is composed of: A representation based on Gabor filters which has been shown to perform very well in face features, Affinity propagation clustering algorithm which is flexible, high speed, and does not require to specify the number of clusters, and structural similarity index which is a very powerful method for measuring the similarity between two images. Experimental results on two benchmark face datasets (LFW and IJB-B) show that our method outperforms well known clustering algorithms such as k-means, spectral clustering and Agglomerative

Hosted file

`gfaceailet.docx` available at https://authorea.com/users/304733/articles/435375-gabor-face-clustering-using-affinity-propagation-and-structural-similarity-index