Salient Point Reduction for Content-Based Image Retrieval

Yao-Hong Tsai

Abstract

Salient points are frequently used to represent local properties of the image in content-based image retrieval.In this paper, We present a reduction algorithms that extracts the local most salient points such that they not give a satistying representation of an image,but also make the image retrieval process efficeiently. This algorithm recurisvely reduces the continuous point set by their corresponding saliency values under a top-down approach. The resulting salient points are evaluated with an image retrival system using Hausdoff distance. In this experiment, it shows that our method is robust and the extracted salient points provide better retrieval performance comparing with other point detectors.

1. Math formula

$$S = \sum_{k=1}^{-j} \left| C^k(W_{2^j} f(m,n)) \right| \qquad (1)$$

For a point in an image, its corresponding saliency value is computed for every wavelet coefficient. We then have to threshold the saliency value, in relation to the desired number of salient points.

2. image

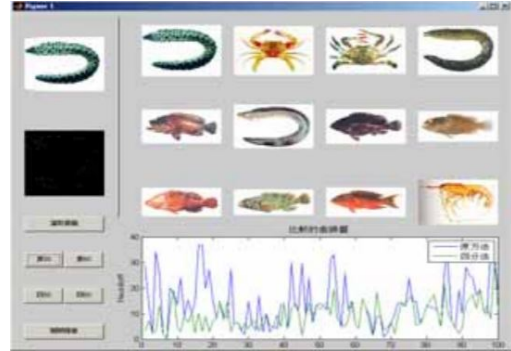| Method	Frobnability
1	
2	
3	
4	

Table 1.

3. table

Figure 1. Results of the CBIR using salient points generated by Song's algorithm.

4. citation

Here is a exemple of citation[1].

References

[1] M Fiala. *Using Normalized Interest Point Trajectories Over Scale for Image Search*. 2006. 1