全局颜色对比度检测和分割显著图的方法

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(复旦大学 信息科学与工程学院 智慧网络与系统研究中心和电子工程系,上海 200433) 摘 要:为了有效地检测和分割图像中多个显著性目标,提出了全局颜色对比度检测和分割显著图的方法.该方法首先通过提取全局颜色对比度的特征,来获取初步的显著图,然后再进一步利用颜色离散度和空间信息进一步提高它们的显著性.以生成的显著图作为初始值,给出了利用迭代动态更新的阈值,来分割多个显著性目标的方法.利用公开 Achanta 数据库的实验结果表明此方法在 ROC 曲线上的表现优于文献报道中的方法,并且适用于多目标的检测与分割问题.

关键词:全局颜色对比度;显著性检测;目标分割;空间加权

Saliency Map Detection and Segmentation Based

on Global Color Contrast

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Abstract: In this paper, a novel saliency map detection and segmentation method is proposed to detect and segment multiple salient objects. The key idea behind this method is to abstract global color contrast feature to obtain preliminary saliency map, which is later improved by the color dispersion and space information. Based on the saliency map, this method is able to segment multiple salient objects using iteratively and dynamically computed threshold. The experimental results on Achanta database verify the effectiveness of this method for saliency detection and segmentation.

Key words: global color contrast; saliency detection; object segmentation; space weighted

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