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A METHOD FOR OBJECT SEGMENTATION IN LOW-RESOLUTION IMAGES BASED ON MASK
R-CNN

Abstract

A novel method for object segmentation in low-resolution images based on Mask R-CNN is proposed. Although the existing methods have made remarkable progress in high-resolution images and large-sized objects, the performance on low-resolution images or small objects is far from satisfactory. Since it is difficult to obtain the high-resolution images in many cases, we aim to pick objects in low-resolution images with higher accuracy using deep learning. A new model, which is designed to combine the bicubic interpolation and Mask R-CNN, is developed to improve the picking performance in cityscape images. The experimental results show that the proposed method can get a better performance compared to existing algorithms.