

一种基于行为上下文的视频情感识别方法

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摘 要: 视频中的场景与对象等含有丰富的情感线索, 传统的视频情感识别方法主要关注视频中人体行为, 往往忽略了场景和对象等上下文线索. 本文提出一种基于行为上下文的视频情感识别方法. 该方法首先基于卷积神经网络提取视频场景、对象、行为等多个模态特征; 然后根据各个模态特征信息确定各模态视频帧情感分数; 在此基础上基于金字塔架构, 建立多模态特征信息融合模型, 对视频情感进行识别. 我们基于 `caffe` 框架实现了该方法, 实验结果表明该方法在性能上优于已有方法.

关键词: 情感识别; 深度学习; 卷积神经网络

A behavior context based video emotion recognition method

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Abstract: Scenes and objects in videos include abundant emotional clues. Traditional video emotion recognition mainly focuses on human behavior in video, and context clues such as scenes and objects are often ignored. This paper proposed a behavior context based video emotion recognition method. Firstly, multiple modal features of video scene, object and behavior are extracted based on convolution neural network(CNN). Secondly, emotional scores of video frames are determined according to its feature information. Thirdly, multiple modal feature fusion model is built based on Pyramid framework to recognize video emotion. The method is implemented based on Caffe. The experiment results show that our method is superior to the existing methods in performance.

Key words: emotion recognition; deep learning; convolutional neural network

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