

4. Conclusion

This paper proposes a new DSSESKN model for art image classification. The DSSESKN module uses the two-branch convolution kernel to extract the overall feature and local detail features of the image, and fuses the extracted features. Two 1×1 convolution operations and Sigmoid gate mechanism are used to extract the key features of each art image. The depthwise separable convolutional neural network is constructed to classify art images such as printmaking, Chinese painting, oil painting, watercolor painting and gouache painting, which can better realize the feature extraction and classification of art images. The DSSESKN achieves better classification effect of art images than existing network models. However, the parallel double convolution operation in the DSSESKN module increases the number of network model parameters significantly. In the following work, we will optimize the network model of art image classification, enhance the art images datasets, and further improve the classification accuracy of art images.

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