

Experimental Comparison of the Effect of Image Augmentation Technique to Raw Data for Image Classification

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Abstract: *Deep Learning models advance the methodology of image classification. But, the performance of the model depends on the diversity of the image used for training. This study examines the effect of image augmentation on the performance of ResNet50 as a baseline model with an SVM classifier for feature extraction. Two parallel experiments were conducted based on 30 raw images and with image augmentation from 8 class representations. The evaluation metrics showcase a remarkable increase of 31% in f1-score and 7.6% in ROC-AUC. The findings enhancement in F1-score ad ROC-AUC underscores the role of image augmentation as a powerful tool to reinforce the model's performance for image classification*

Keywords: Computer Vision, Deep Learning, Image Augmentation

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