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Abstract

This work evaluates and compares the architectures: Inceptionv4, InceptionResnetV2, and Resnet152, to classify benign and malignant. We evaluate the architectures with a statistical analysis base on the received operational characteristics (ROC), accuracy, precision, recall, and F1 score. We generate the best results with the CNN InceptionResnetV2 trained with two classes on a balanced mammogram database. The results for benign cases have a ROC of 0.93, a precision of 0.8319, a recall of 0.9216, and an F1-score of 0.8744. The results for malignant cases have a ROC of 0.91, a precision of 0.9121, a recall of 0.8137, and an F1-score of 0.8601.