

Breast cancer detection using CNN:

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Breast cancer is one of the leading causes of death among women. There has been a lot of research done on the use of different image processing and classification algorithms for the diagnosis and detection of breast cancer. An automated breast cancer diagnosis system using a deep learning model involves training a neural network on a dataset of mammogram images, along with their corresponding labels (i.e. normal, benign or malignant). The model can then be used to classify new mammogram images as either benign or malignant. A thorough experimental setup is constructed in order to train and test the CNN model. The dataset is split into training and testing sets, with the training set being enhanced using the proper data augmentation techniques. The approach for training deep learning models for breast cancer diagnosis is to use convolutional neural networks (CNNs), which are well-suited for image classification tasks. These models can learn to extract features from the mammogram images and use these features to make predictions. The use of CNN model helps to incorporate a lot more data which helps the model become more generic and makes the diagnosis more reliable. The outcomes show how successful the suggested CNN-based method is for finding breast cancer. The trained model exhibits good performance in differentiating between malignant and benign lesions and achieves high accuracy.

Keyword—breast cancer detection, deep learning, convolutional neural network, training dataset, test dataset mammogram images.

