

Literature Survey on Skin Lesion Classification			
S.No.	Title	Author name	Description
1	A Transfer learning based approach for Skin Lesion Classification from Imbalanced data	Zillur Rahman,Amit Mazumder	<p>This literature survey introduces a study focused on the classification of skin lesions, a critical task in detecting skin cancer early. It highlights the significance of automated systems in this domain due to the subjectivity and inaccuracy of visual inspection. The study employs deep learning techniques, specifically ResNet, Xception, and DenseNet models, trained on the HAM10000 dataset. Results indicate promising accuracy, with a weighted ensemble technique further improving performance. This literature survey outlines the challenges in skin lesion classification, such as data quality issues and image noise, and discusses the methodologies used, including data preprocessing and model selection.</p> <p>Through this deep learning model we have a specialised model like CNN makes more exact accuracy by using different layers like dense, flatten, pooling layers. So it is a better algorithm to be used according to this survey.</p>

2	Skin Cancer classification using Image processing and Machine learning	Arslan Javaid,Muhammad Sadiq,Fazar Akram	<p>This literature survey outlines a methodology for skin lesion classification and segmentation as benign or malignant using image processing and machine learning techniques. It introduces the significance of early detection of melanoma, the deadliest form of skin cancer, and discusses the limitations of conventional diagnostic methods. The proposed approach involves contrast stretching of dermoscopic images, followed by segmentation using the OTSU thresholding algorithm. Features extraction includes texture identification using Gray level Co-occurrence Matrix (GLCM) features and histogram of oriented gradients (HOG), among others. Principal component analysis (PCA) and Synthetic Minority Oversampling Technique (SMOTE) are employed for feature reduction and dealing with class imbalance, respectively. Classification is done using Quadratic Discriminant, SVM (Medium Gaussian), and Random Forest classifiers, achieving a maximum accuracy of 93.89% with Random Forest. Previous related works are also reviewed, emphasizing the need for improved detection methods, with the proposed system demonstrating better results on the ISIC dataset.</p>
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3	Convolutional neural network based SkinLesion classification and identification	Aishwarya,Jackson daniel,Raghul	<p>This literature survey introduces a methodology for the early detection and classification of melanoma, a dangerous form of skin cancer. It emphasizes the increasing incidence of melanoma and the importance of early diagnosis for effective treatment. The proposed approach involves processing patient images through various steps, including pre-processing with filters, segmentation using clustering algorithms, and classification with Convolutional Neural Networks (CNNs). Performance evaluation indicates high accuracy, specificity, and sensitivity, demonstrating the effectiveness of the proposed model compared to existing algorithms. The abstract also discusses the challenges in melanoma detection and highlights the significance of automated detection methods in improving diagnostic procedures.</p>
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