

Skin Disease Detection

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Abstract: *The human skin is a remarkable organ susceptible to a myriad of known and unknown diseases. Many of these ailments are widespread, with some ranking among common worldwide. The complexity of diagnosing these diseases is compounded by challenges such as variations in skin texture, the presence of hair, and diverse skin colors. In some areas with limited access to medical facilities, individuals often neglect early symptoms, leading to exacerbated conditions over time. Furthermore, traditional diagnostic methods for skin diseases are time-consuming. To address these challenges, there is a critical need to develop advanced diagnostic methods utilizing machine learning techniques to enhance accuracy across various skin diseases. Machine learning algorithms have proven valuable in medical applications, leveraging image feature values to facilitate decision-making. The diagnostic process involves three key stages: feature extraction, training, and testing. By employing machine learning technology, these algorithms learn from a diverse set of skin images to enhance their diagnostic capabilities. The primary goal is to significantly improve the accuracy of skin disease detection. This study focuses on utilizing color and texture features for the classification of skin diseases. The distinctive color of healthy skin differs from that affected by disease, while texture features effectively discern smoothness, coarseness, and regularity in images. Key features such as texture, color, and shape play a pivotal role in image classification. The incorporation of convolutional neural networks (CNN) further augments the capabilities of image classification in the realm of skin disease diagnosis.*

Keywords: Skin disease, Machine Learning, Convolutional Neural Networks (CNN), Image Classification