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AI-Powered Skin Cancer Detection and Dermatologist Consultation Assistance

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Abstract: Skin disease is one of the most common illnesses that individuals have, and it is becoming more common. Early diagnosis is therefore essential. In order to give non-specialized customers guidance, computer-based diagnosis of skin ailments is necessary, as even experienced doctors find it challenging to classify skin diseases and their causes. Early treatment of skin disorders has been shown to reduce patient mortality and morbidity. One of the most economical methods for classifying and diagnosing skin disorders is digital dermoscopy. Consequently, skin cancer can be detected using image processing techniques. Quantitative information about a lesion can be obtained in the medical field using image processing. One method of non-invasive medical testing is image processing. It only serves as a warning mechanism to help you steer clear of problems later on in your therapy. In actuality, early lesion identification is an important and critical initial step. This cannot be accomplished with any type of body-penetrating injection. Examine some digital pictures of skin lesions. Feature extraction is an essential tool for accurately evaluating and interpreting an image. After dividing a number of photos, the properties were retrieved. The recommended approach makes use of the most basic segmentation technique. No human interaction is required, and different skin lesions don't require different parameter adjustments. We can investigate texture-based, shape-based, and color-based aspects in this study. Another deep learning technology that is used to classify skin illnesses according to their level of hazard and provide guidance on preventative measures is convolutional neural networks.

Keywords: Image processing, deep learning, machine learning, dermoscopy images, and severity levels.

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