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Early Identification of Epidermis Disorder

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ABSTRACT: Epidermis Disorders are common and can make people's lives harder. It's important to find these problems early so they can be treated and not get worse. Things like genes, things around us, and our choices can cause skin problems. Knowing what to look for and taking steps to prevent skin problems can help. Doctors can help find and treat these problems. It can be hard to figure out what skin problem someone has, but finding them early is important for getting better. This article talks about different ways to find skin problems early.

I. INTRODUCTION

Skin diseases are a common health problem worldwide. Skin conditions can be prevented from worsening if they are identified and treated early. Thanks to modern technology, we can now utilize computers to more accurately locate and diagnose skin problems. In this paper, we discuss tools that can aid medical professionals in identifying skin conditions. We also propose a novel approach to accomplish this using the software VGG19 and the storage platform AWS.

II. LITERATURE SURVEY

With the use of image processing and machine learning methods, several research have been done on the subject of skin disease identification. According to a survey[2], skin disease diagnoses may be made using markers such lesion size, color, and texture. An image processing-based approach for skin disease identification is suggested in another work by[1]. The technique employs image analysis to determine the kind of disease by taking a digital photograph of the afflicted skin region. A study by[5] suggests a machine learning-based strategy for identifying and categorizing skin diseases. The paper by[7] provides a summary of the systems that are currently in use for machine learning-based skin disease prediction. Deep learning techniques and their applications in the detection of skin diseases are presented in a review by[9]. A thorough comprehensive assessment of deep learning methods for skin cancer early detection is presented in another paper by[10].

III. METHODOLOGY

Data gathering: Gather a sizable collection of pictures of skin conditions from various sources.

Image preparation for skin disease: To improve the quality of the photographs, skin disease photos must first be pre-processed using image processing methods.

Extracting features: Make use of the pre-trained deep learning model VGG19 to extract features from the pre-processed photos.

Classification: Using AWS, which offers pre-trained models for skin illness classification, classify the photos into several categories of skin disorders.

After categorization, the skin conditions may be identified utilizing technologies powered by artificial intelligence, which helps general practitioners and nurse practitioners make dermatologic diagnosis.

IV. EXISTING SYSTEM

Currently, computers and specialized methods are used to detect and diagnose skin conditions. They examine images of the skin and identify potential diseases using characteristics such as size, color, and texture. However, these methods aren't always efficient or accurate.



V. PROPOSED SYSTEM

We suggest a fresh approach to skin disease diagnosis that makes use of the VGG19 architecture and AWS for storage. Our approach employs image analysis to determine the kind of illness from a digital picture of the afflicted skin region. For the categorization of skin disorders, we employ the deep convolutional neural network VGG19 architecture. In a number of image classification applications, the VGG19 architecture has demonstrated promising results. The trained model and the photos of skin diseases are also stored on AWS. Large volumes of data can be stored and accessed on a scalable platform thanks to AWS.

VI. CONCLUSION

Skin disease detection and diagnosis is a crucial field of research in the medical industry. With the use of modern technology, such as computers and devices that can comprehend photos, we can more quickly and accurately diagnose skin conditions. We examined many methods used to create systems to identify skin illnesses in this work and proposed a novel approach utilizing a specialized type of computer software called VGG19 and a location to store the data called AWS. Our new approach is easy, quick, and precise. VGG19 has already proved effective at locating objects in images, and AWS is a secure location with enough of space to store all the data. Our innovative approach can aid physicians in early skin disease detection and halt disease progression.

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