SkinScanPro: A Deep Learning-Based AI Health Assistant for Skin Disease Classification

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Abstract

The impact of skin diseases is felt worldwide by millions of people. It is necessary to have a tool for diagnosing this problem efficiently. Stocked with AI, this study turns public attention to skin disease classification, employing the Deep Learning algorithm DenseNet201--known for its exceptional feature extraction skills. This interactive system deploys a trained model through user input, skin images. A diagnosis with that model is a matter of just a few seconds. With a private dataset, we adopted data augmentation and then saved the trained model via Python's pickle library so that it would run on demand. The results show that up to 4/5 accuracy is achieved when classifying as expected by the feed forward operator all ellipse points in 1d spatial correlation matrix.

Keywords

Skin Disease Classification, Deep Learning, DenseNet201, Feature Extraction, AI in Healthcare, Image-Based Diagnosis.