AI BASED LOCALISATION AND CLASSIFICATION OF SKIN DISEASE WITH ERYTHEMA

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PROBLEM STATEMENT

Dermatological disorders are common in general pediatric practice. A large percentage of misdiagnosis of common diseases, especially skin and other exterior-oriented diseases. This may be due to the fact that in general, it is not necessary for a pediatrician to undertake the necessary training in the field of dermatology and its practical knowledge.

Further, diagnosing a patient for a skin disease usually involves

- Careful observation of the symptoms by the doctor using the naked eye and based on his own judgment and experience, will issue a diagnosis on what he or she ***thinks*** the disease could be.

- There has been no singular tool up until now which allows for any and all medical professionals to verify the validity and correctness of their own diagnosis.

- If the occurrence of the disease may be due to factors that are outside of that specific medical practitioner’s area of expertise , then the true cause for the symptoms will almost surely go unnoticed.

- Beyond this, they are also prone to commit other mistakes as a consequence of their human nature.

Keeping in mind these flaws that are inevitable , having the option to have their diagnosis skills verified and validated by the use of a tool that makes up for some if not most of their inadequacies allows for a satisfactory response to the needs of the patient and the overall competence of the medical practitioner.

For these reasons, it is the objective of this project to build a project, that is, an intelligent system using Artificial Intelligence-based classification algorithms to

accurately judge and diagnose the dermatological disease by analyzing in-depth, the high-level features that are present in the images of the patient's symptoms.

This project aims to supplement diagnostic procedures of medical professionals and wherever necessary, do an independent diagnosis and draw out accurate conclusions in order to allow for a wider and more comprehensive analysis of the patient's symptoms by going through the vast and various possibilities of the causes behind a particular disease. This can help make up for the possibility of lack of domain knowledge by a single or even a group of human practitioner(s) and in case of any errors in judgment , will allow for the medical practitioner to reassess and if necessary, correct his or her judgment .