

MINHAJUNIVERSITYLAHORE



Final Year Project Proposal

Project Title: Diagnosis of Skin Disease Using AI

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Abstract

This project help Dermatologist to cure and diagnose the Skin disease because many skindisease have similar Symptoms that why it is more important problem. In this paper we design thethose system that help Dermatologistto diagnosis the some skin disease like(Acne and Rosacea,Actinic Keratosis,Eczema Photos,Melanoma,Psoriasis,Tinea Ringworm,Urticaria Hives and Nail Fungus etc). The our project is GUI based and any one interact with them easily the main aim and key feature of the our project that make different from other to recommended and appointment of doctor.

Introduction

The Skin is the biggest and major Organ in the human Body their mass about 4 kg to 5kg and their surface area about 1.2 to 2.2 m² Skin is play major role in the human body they protectthe internal organ of the body and also protect the body from temperature of environment and also adjust the human body according to temperature.

The first priority of the human is to take care the skin from the disease but some Unfortunately the ourskinalso surrounded bythe differentkindsof theskindisease. Innow days theskindiseaseare very common due to some human activities and the huge change in the climate.

So above all discussion we need the those system that is more flexible and help the dermatologistto cure the skin disease. The skin is the largest organ in human body the almost all skin disease have same symptoms that is difficult for the doctors to detecting and curing.

In this problem we designed the system by using the AI (Artificial Intelligence) that help the dermatologist to detection and diagnosis of the skin disease we embed this System with one ofthem App or Web that take the picture of the human skin where the skin disease is occur and use the AI algorithm detect and diagnosis the disease they tell about the detail description of thedisease such as what type of disease, symptoms and causes etc. After provide the detail description theyalsorecommended thesomemedicineaccordingtothe disease but someisdiffficulttofindthe doctor of skin disease so our system also provide the interaction between patient and the doctor so anyone easily take appointment from the doctor and also concern the doctor using Social media.

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GoalsandObjective

Ourprojectmainobjectivesareasfollow;

- ThissystemhelpstheDermatologisttocureanddetectthedisease.
- Thissystemtakethepictureslocalpeopleisalsousedthissystem.
- ReducetheextraburdenofDermatologistfordetectionandcurethedisease.
- Savethetimeandincreasetheefficiency.
- SystemProvidetheGUIinterfacetotheuserSoitiseasilyusebyanytypeoftheuser.
- Providethetelecommunicationwiththedoctor.
- Makeeasiertheprocessofdoctorappointment.
- Itisalongtermbusinessappweintegratethedifferenttypesofdoctorinhospitaland local Clinic use this app.

ScopeoftheProject

The system is based on the Supervise Machine learning we train the our system by usingthe different kind of image of skin disease. So we take the picture as an input from the user some time picture is not clear and having some noise first of all we make processing on the image and clear the image by removing all type of noise by applying the different data cleaning method such as Scikit-image and anyone from available algorithm. We use the CNN (Convolutional Neural Network) algorithm of Machine Learning to Solve the our problem and we also train the oursystem by using this type of model.

SystemRequirement

Therequirement oftheourSystemisfollowing;

- CameraAccess
- GalleryAccess(ForUploadimage)
- WhatsappandCallappaccess(ContactwithDoctor)

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System Specification

The Specification of our system is following;

- GUI Based
- Easy interface
- Take picture
- Show the result
- Integrate with doctors
- Recommended the treatment

Target Community

The target community is doctor, patient having skin disease and any type of user that in medical or non medical field.

Technologies

We use following technologies to build our project

- Python
- XML/JAVA
- HuggingFace

Tool

- Google Colab
- HuggingFace
- Android Studio

Conclusion

We proposed an app that is based on the AI and help the different people and dermatologist to detect the type of skin disease. The our app detect the skin disease and help the patient to give treatment tips and also recommended the doctor and our patient also take the appointment with the doctor.