

Project Proposal for Skin Cancer Classification

URL to dataset: https://www.kaggle.com/kmader/skin-cancer-mnist-ham10000?select=hmnist_28_28_RGB.csv

Features the app will support:

User can click a picture of his/her infected skin region and upload it on the app. The app will classify the disease into one of the following: actinic keratoses and intraepithelial carcinoma, basal cell carcinoma, benign keratosis-like lesions, dermatofibroma, melanocytic nevi, pyogenic granulomas and haemorrhage, and melanoma.

After classifying the disease, the app can also show some information about the disease, and suggest the user to contact a dermatologist as soon as possible.

List of similar existing apps:

MoleMapper: <https://molemapper.org/>

UMSkinCheck:

<https://www.uofmhealth.org/patient%20and%20visitor%20guide/my-skin-check-app>

MoleScope: <https://www.molescope.com/>

SkinVision: <https://www.skinvision.com/>

Motivation (Why I chose this project):

According to skincancer.org Skin cancer is the most common cancer in the United States and worldwide. 1 in 5 Americans will develop skin cancer by the age of 70. Early detection of skin cancer is vital to ensure successful treatment. An app that can self-diagnose any potential skin cancer within seconds with the ease of a button click can prove to be beneficial by greatly bringing down to cost and time for testing. Since the app also detects some diseases which appear like cancer, but are non-cancerous, it can alleviate the stress of people in such cases.