Automated Skin Lesion Analyzer

Group No. 26

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Project Guide and Coguide:
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Introduction

Automated Skin Lesion Analyser will be a web application that can take affected skin lesion images and predict the cancerous disease.

- Problem Identified :

  - Complexity in skin disease detection in rural area.

  - Lack of knowledge about dangerous skin disease.

  - Time requirement to visit dermatologist.

- Solution Proposed :

  - Automated image based system for recognition of skin disease.

  - Convolution Neural Network for image identification.

  - An efficient and dependable system for skin disease detection.

Objectives

- To make a user friendly website to diagnose skin cancer.

- To classify 7 types of skin cancer using CNN.

- To accomplish the goal of top accuracy using CNN.

- To deploy our trained model in our web application to serve it online.

Technology stack

- Backend -Libraries: Tensorflow, pandas, numpy, matploatlib, PIL, keras, sklearn, Opencv.
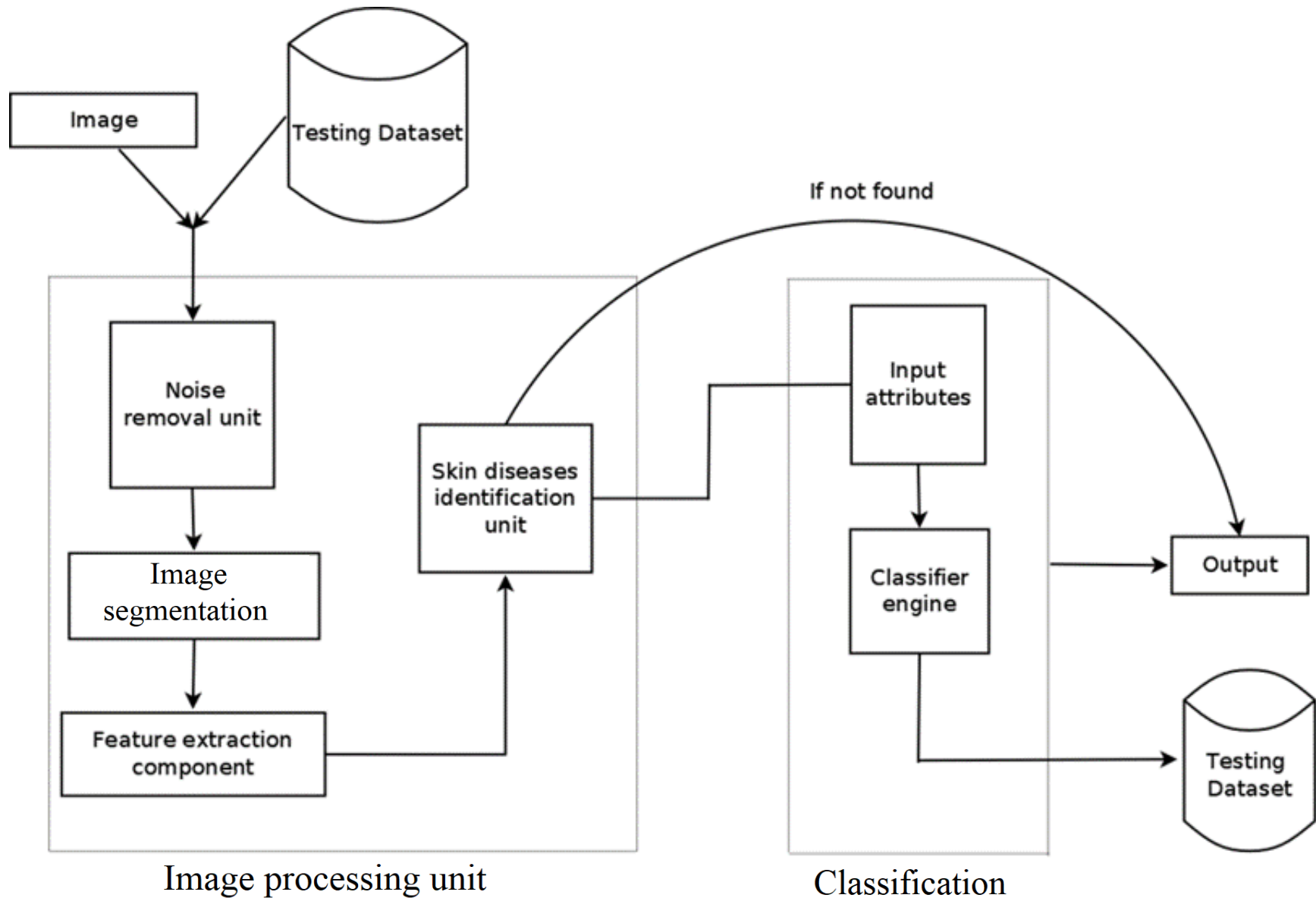
  Dataset: HAM10000

  Model: Convolutional Neural Network

- Frontend - React, CSS, JavaScript

- Web Frameworks - Flask
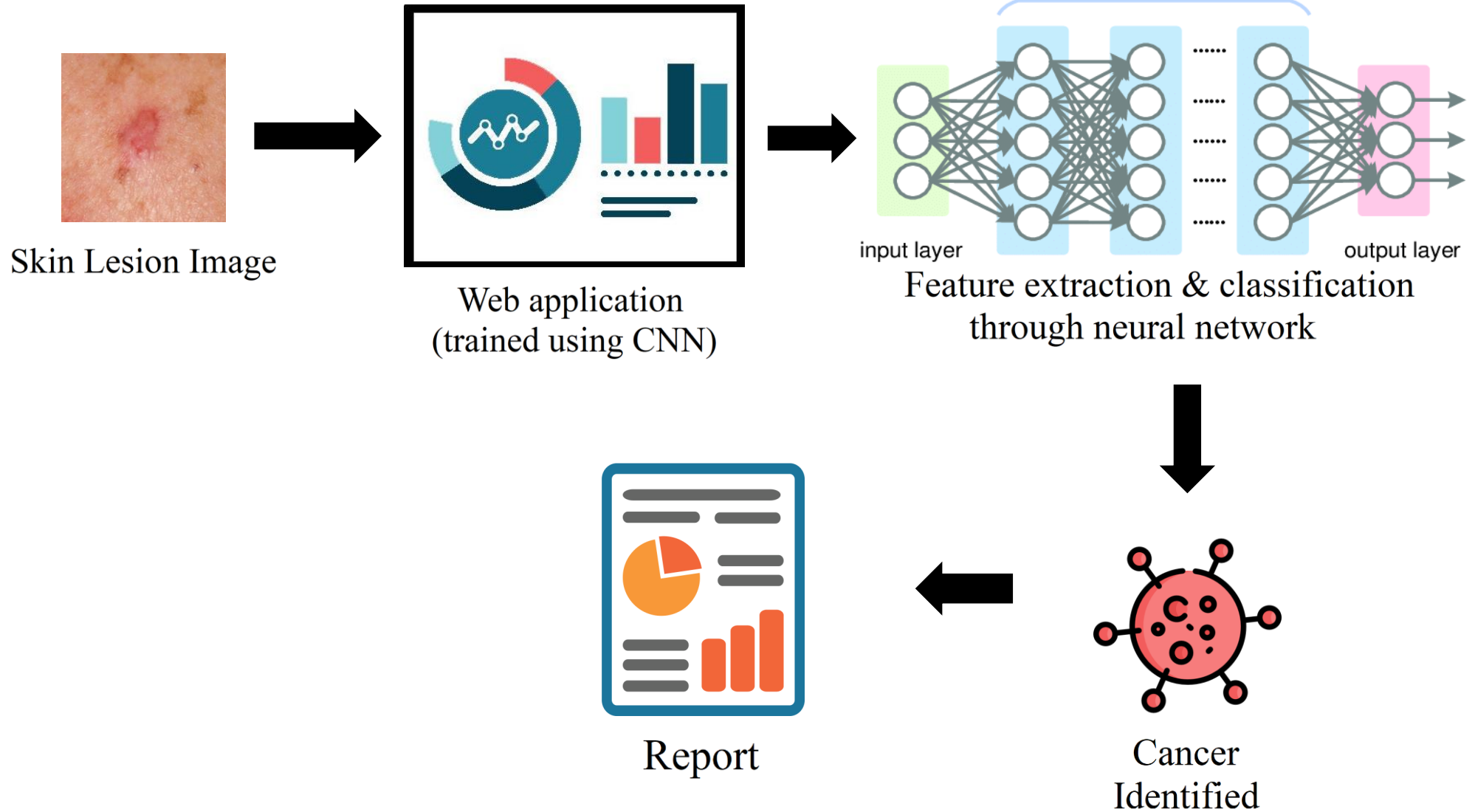
Review Suggestions

- To add a dashboard to the web application

- To increase the accuracy above 75%

Proposed System Architecture/Working

Prototype Design Demonstration

Skin Lesion Image

Web application (trained using CNN)

Feature extraction & classification through neural network

Report

Cancer Identified

Implementation Status

- Built a U-net model that gives test accuracy of 70%

- Working on achieving high accuracy.

Status of Paper Draft & Targeted Conference

- ICOECA 2022 : 2nd International Conference on Expert Clouds and Applications

➤ Submission Deadline: Friday 15 Oct 2021

➤ Conference Dates: Feb 3, 2022 - Feb 4, 2022

➤ http://icoeca.com/2022/

- ICPCSN 2022 : 2nd International Conference on Pervasive Computing and Social Networking

➤ Submission Deadline Tuesday 02 Nov 2021

➤ Conference Dates Mar 3, 2022 - Mar 4, 2022

➤ http://icpcsi.in/2022/

Thank You...!!