كلية الحاسبات والذكاء الإصطناعي
Faculty of Computers & Artificial Intelligence

CS396: Selected CS2
Team no.: 33

جامعة حلوان
HELWAN UNIVERSITY

Apple leaves disease recognition using CNN.

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The chosen paper details:

- **Its citation**:

Author name: Saraansh Baranwal, Siddhant Khandelwal and Anuja Arora

Paper title: Deep Learning Convolutional Neural Network for Apple Leaves Disease Detection

Publisher name: International Conference on Sustainable Computing in Science, Technology & Management (SUSCOM-2019)

Date of publication: February 2019

- **The dataset description**

The dataset used in this project consists of four prominent classes. Three of which are diseases, and one is the class of healthy leaves.
We have 100 samples of healthy leaf images and 1526 samples of diseased leaf images. This dataset is a subset of the popular Plant Village dataset.
For a specific image of apple leaf, classification technique is required, which can classify input images into one of the classes as shown below in Table II.
They used the CNN algorithm to detect the apple leaves disease.

Results:

The deep learning model was able to achieve on an average 98.42% accuracy.

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Project Description

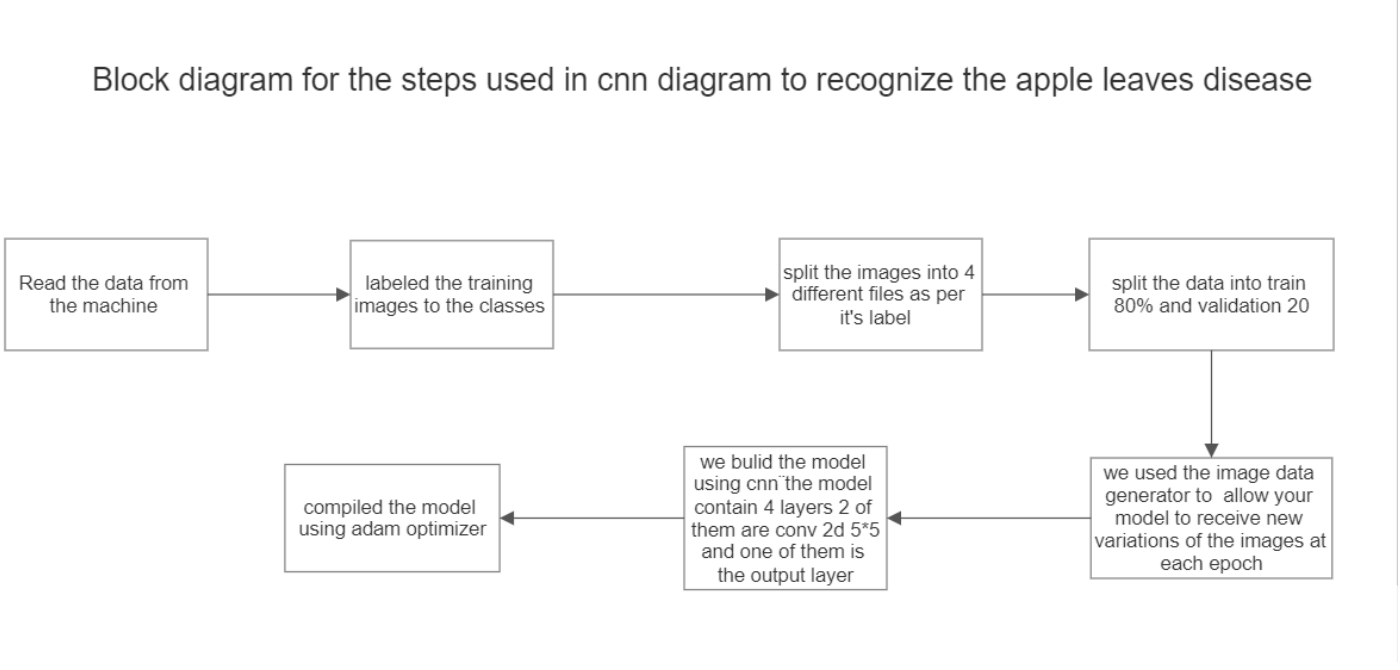
- **Dataset used:**

*Dataset name: Plant Pathology 2020 - FGVC7
*Dataset link: **https://www.kaggle.com/competitions/plant-pathology-2020-fgvc7/data**
*Total number of images: 3642
*Dimensions of each image: 2048×1365
*Number of classes are 4
*Labeled as:
-healthy
-scab
-rust
-multiple disease

- **Implementation details:**

The ratio used for training is 80% with 1458 images**,** validation is 20% with 363 images.

*



the results:

- The accuracy is about 36%