Nightshade-CNN

Algorithm Steps:

Input: Nightshade crop leaf Images with Plain background.

Steps:

Initialization:

1. PlantVillage repository and Eggplant leaf download the image and resize it.

Preprocessing:

2. For each instance of data

   A. Use imagedatagenerator for augmentation

   B. Remove Noice

   C. Scikit-learn for split the data in training, testing and validation

Hyperparameter Selection:

3. Define the model parameters like batch size, learning rate, epochs, padding, stride, no of layers, activation functions, filters etc.

Model Creation:

4. Configure the model based on the set parameter in step3.

5. Apply the activation function to the configured model

Compilation:

6. Compile the model using Adam optimizer with 0.0001 learning rate.

Training:

7. Train the model

Validation:

8. Validate the model.

Testing:

9. Test the model for the unseen data and check the accuracy of the model.

10. Disease identification.

11. Remedial Measures