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PLANT VISION

M Jilal

But in a Local Setting!

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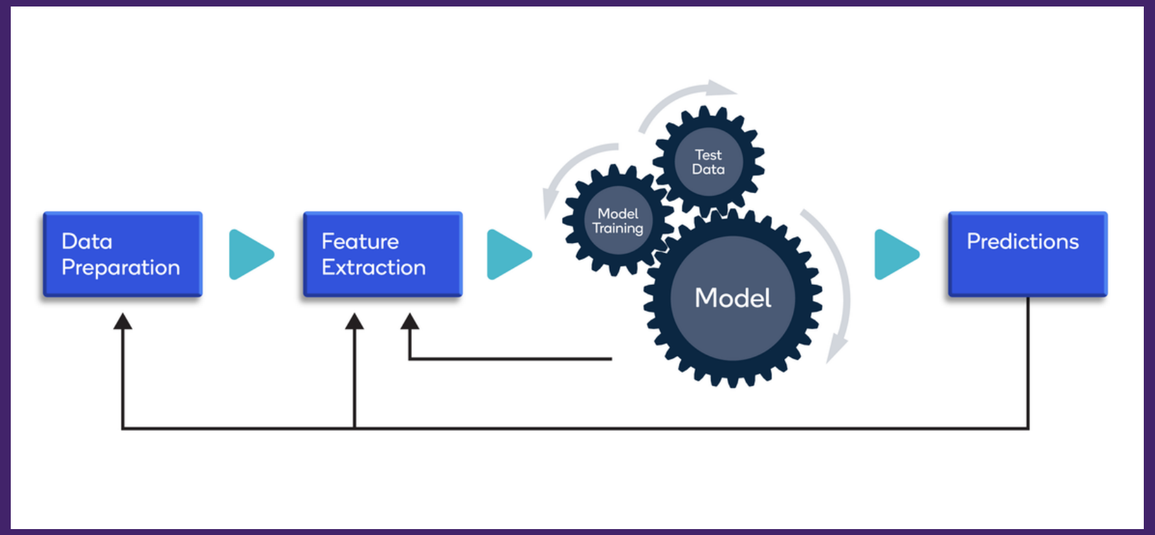
Objectives



- Attain a working image classification and localization model that utilizes a pre-trained neural network as backbone
- Prepare a self-made dataset for both testing and training purposes
- Optimize the model which improves the accuracy

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Dataset: Test and Training Choices

Testing

- Manually obtained through surveying the city
- Roadside plants in nurseries were utilized to obtain this

Training

- Local species obtained were not in the label sets of the pre-existing datasts (LeafSnap, Flavia, PlantVillage)
- Physical limitations to obtain large training dataset
- Final Approach: Web scraping!

Implementation of the Model

- Import Local Dataset into Colaboratory
- Perform Selctive Search
- Build RCNN model with VGG 16 as backbone network

Challenges

Within the Process

01 Difficulty in finalizing the annotated dataset due to bounding box problem

02 Importing the dataset on google colab was challenging due to difference in script between platforms (colab vs. Kaggle

03 Previous classification models were implemented in other languages such as Jupyter. Similarly, syntax issues were encountered upon using Keras

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What Work is Left

Training The model

Moving Toward Faster RCNN

THANK YOU