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CLASS:BS DATA SCIENCE (6A)

SUBJECT:IMAGE PROCESSING

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PROJECT DESCRIPTION:

Flower-Classification using Transfer Learning

The goal of Flower Classification is to develop a flask model for supervised image classification of rose, daisy, lotus, marigold, and tulip flowers to enable accurate prediction of flower types.

Table of Content

Trained:

"Flowers17_model" file our our pretrained model.

We trained this dataset and classification of different images of flower and predict the flower and this is in flask web app.

Problem Statement

The problem at hand involves the supervised image classification of different flower species, including roses, daisies, lotus, marigold, and tulips. With the abundance of beautiful and unique flowers, accurately classifying them poses a significant challenge due to visual similarities among species. However, this classification task holds great value in fields such as pharmaceuticals, botany, agriculture, and trade. The objective is to develop a flask model that can effectively predict the flower species based on input images. By training the model on a diverse dataset encompassing various flower types, the aim is

to create a reliable and accurate tool for flower classification.

Dataset

Use a dataset of flowers abd pretrained for the prediction and classsification of flower by using flask web app and predict.

Conclusion

In conclusion, we successfully utilized a flask for flower prediction using the flower recognition dataset consisting of five flower types: Daisy, Lotus, Rose, Marigold, and Tulip. By employing transfer learning with ResNet-50 and implementing a Dropout layer to mitigate overfitting, we significantly improved the performance of our model. However, further improvements can be achieved by incorporating more data and employing data augmentation techniques to enhance the model's robustness and generalization capabilities. These steps will contribute to refining the accuracy and reliability of our flower classification model.