

Project Description:

Given thousands of flowers pictures, it is asked to build a model to classify them into 5 classes. Therefore, a deep model is built to do the job.

Data Preprocessing:

Firstly, I applied preprocessing to the data. After reading the pictures and having a glance through them, I resized them into shape[64, 64, 3] and feed them to the model with only one fully connected layer. Then I resized them into [28, 28, 1] for a simple CNN structure.

Model Building:

Totally, I built two models : one simple-structured and one cnn-structured.

For the simple one, there is only one fully connected layer and takes the [64, 64, 3] shaped data as input.

For the cnn one, it is the one presented on the Tensorflow website. Its structure is like this: conv1 > pool1 > conv2 > pool2 > fc1 > dropout > fc2 > loss.

There is a little problem within my experiment. I wrote my code on jupyter notebook and succeed to run both two models and get prediction. And then I wanted to seek some modification. But I forgot to save the bug free code for both models. I remember I got a 43% accuracy for the simple model and 38 % for the cnn. But now my code does not work well and generated a prediction with only two labels.