Project report - Week 3

June 22, 2020

1 Introduction

The idea behind finding the most similar flower is to use encoder. It compresses the image to only two numbers, which turns out to be an easy way to compare 2 objects. We just need to calculate the distance between two compressed images.

We are looking for a similar images in our dataset. All image are pre-encoded and the results (2 numbers) are stored in a file.

2 Results

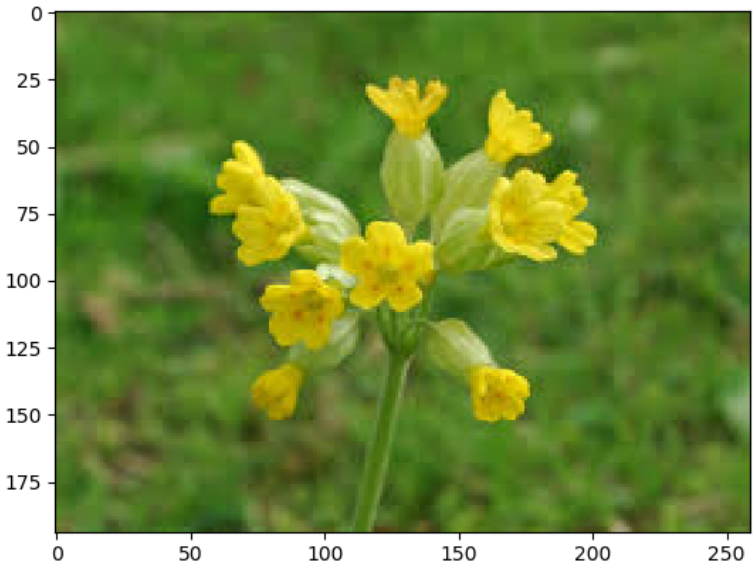

Figure 1: The original image for which we want to find similar images.

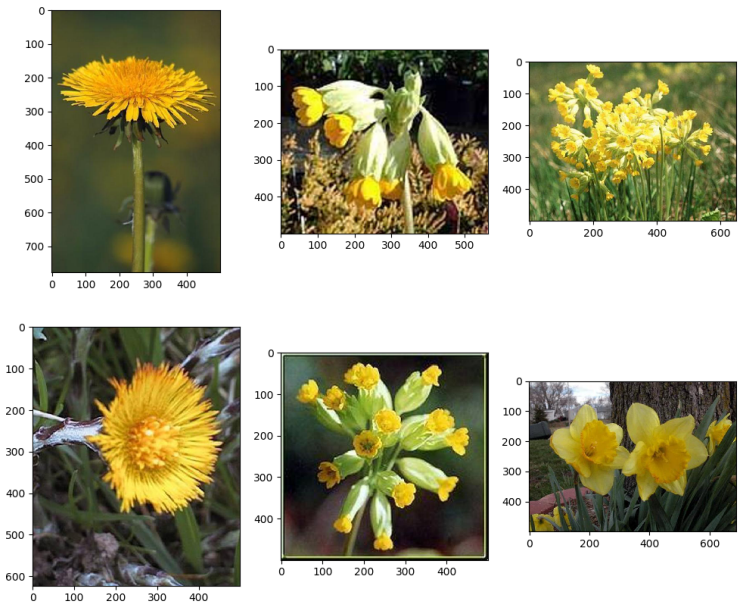

Figure 2: Similar images.

As we can see, the images, we have found, have similar colour and similar shape even though the dataset contains a lot of flowers with different colours and shape.

3 Summary

After creating encoder, it is easy to find similar images and it is quite precise. We can also compare how close are the images using distance between them.

You can find the python script, encoder and dataset here:
https://drive.google.com/file/d/1cYU-Y3eqHi1WjKDY1q3tivhAHX7pqJaN/view?usp=sharing
use command: python find_similar.py {path to flower}
for example: python find_similar.py .\flowers_to_test\Cowslip_v2.jfif