

Çağrı Erciyes:

I've taken photos of new species with Burak, and put link to OpenProject Forums. Also, I tried contour masking for avoiding threshold instability in grey image. Also, I contacted with a guy who will design our poster.

İlke Çuğu:

Server problem is solved. It can serve a lot more than 23 users now. New leaf images of current tree classes are modified and added to dataset. Caffe is fine-tuned with the latest dataset. Iteration count was 50000. This fine-tune process is needed for accurate comparison with SVM. Project presentation is ready and added to OpenProject. Caffe fine-tuning with feature vectors is not completed. Codes that I found from online sources did not work. Found another solution from stackoverflow.com, and I will try that this week.

Eren Şener:

I have redesigned and implemented our website. Also fixed some bugs on demo page. Moreover, I have trained several SVM Classifiers. Results are as follows:

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|---|----------|
| 1) SVM - just hand-crafted features | : 66.97% |
| 2) SVM - fine-tuned Caffes' fc6 layer | : 93.75% |
| 3) SVM - fine-tuned Caffe's fc6 layer & hand-crafted f. | : 93.85% |

More detailed results of merged classifier (3rd SVM). (Accuracies calculated on test images.)

Caffe Accuracy : 90.54%

SVM Accuracy : 93.19%

- Caffe failed 257 times in 2717 instances.
- SVM failed 185 times in all 2717 instances.
- SVM successfully guessed 109 of these fails.

- Caffe was predicting like this before SVM.

1st place: 2460

2nd place: 123

3rd place: 42

4th place: 18

5th place: 14

Not in t5: 60

- Can SVM improve the accuracy by adding different results to top-5?

SVM guessed correctly 109 of these 257 fails. And Caffe guessed correctly its own fails in the following order.

2nd place: 73

3rd place: 24

4th place: 4

5th place: 7

Not in t5: 1

So, SVM just adds 1 extra result to Caffe's results.

- What will happen if we change orders of Caffe's results? (Ex. If 2nd guess of Caffe matches with SVM's guess move it to the 1st place.)

26 of 2460 successful guesses of Caffe will be failed by SVM after changing orders.

- Latest Caffe accuracy was 90.54% and #of fails were 257

- Latest Caffe accuracy after changing order is 92.27% and #of fails are 210

- Caffe is predicting like this after changing order of result.

1st place: 2507

2nd place: 95

3rd place: 26

4th place: 21

5th place: 9

Not in t5: 59

Burak Balcı:

Some bugs were resolved. 292 photographs belonging to 16 species have taken. Neural network with various topologies was trained but no any successful model was able to be created. In two classes classification, while training accuracy was 84 percent at its highest, testing accuracy was always 50 percent. In multiclass classification, even training accuracy was 35 percent at its highest.

Emre Akın:

- New tutorial is ready to use, both Turkish and English.
 - Whole Android application is translated into English.
 - In my observation tab, delete option is added. User is able to delete her/his observations by using our application.
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