Challenge Overview



Challenge Task

WebVision Image Classification Task

• Learn models on the WebVision train set and evaluate on the val and test set

Challenge Platform

webvision WebVision Challenge 2018 Organized by 07wanglimin - Current server time: June 15, 2018, 8:01 a.m. UTC Fnd Previous ▶ Current June 2, 2018, midnight UTC June 2, 2018, midnight UTC June 10, 2018, 11:59 p.m. UTC Learn the Details Participate Forums 🔊 Phases Results Challenge Overview Evaluation The goal of this challenge is to advance the area of learning knowledge and representation from web data. The Terms and Conditions web data not only contains huge numbers of visual images, but also rich meta information concerning these visual data, which could be exploited to learn good representations and models. In 2018, we organize one track for this challenge: WebVision Image Classification Task.

Challenge Schedule

Development

Start: March 28, 2018, midnight

Description: The Development Leaderboard is based on a fixed random subset of 50% of the test images. To submit, upload a .zip file containing a predictions.txt file with the prediction in the format used in the dev kit. An example submission file can be found at: https://data.vision.ee.ethz.ch/aeirikur/webvision2018/example_submission.zip

Testing

Start: June 2, 2018, midnight

Description: To submit, upload a .zip file containing a predictions1.txt, ..., predictions5.txt file with the prediction in the format used in the dev kit. The file with the best top-5 accuracy will be used to determine the winner. Please also include a readme.txt file with a description for your entry. An example submission file can be found at: http://vision.ee.ethz.ch/~liwenw/webvision2018/example_submission_testphase.zip

Competition Ends

June 10, 2018, 11:59 p.m.

Submission Policies

- Each participant may have maximum 10 submissions during development phase.
- Each team may have 5 submissions during test phase.
- Learn vision models from noisy data (WebVision dataset).
- No extra data is allowed to use.

Provided Tools

weilinear / webvision							1	Star 7	Fork 0			
<> Code	() Issues 0	1 Pull requests 0	Projects 0	🗉 Wiki	Insights	Settings						
This package provides simple functions to verify and evaluate WebVision dataset. http://www.vision.ee.ethz.ch/webvisio												
webvision-workshop Manage topics												
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Number of participants

webvision

WebVision Challenge 2018

Organized by 07wanglimin

The recent success of deep learning has shown that a deep architecture in conjunction with abundant quantities of labeled training ...

Mar 28, 2018-Jun 10, 2018

102 participant s

We have 6 teams to submit valid results to image classification track.

Challenge Results: Classification Track

Results									
#	User	Entries	Date of Last Entry	top-5 accuracy 🔺	top-1 accuracy 🔺				
1	kivajok	4	06/10/18	79.20 (1)	55.89 (1)				
2	thesouthfrog	5	06/10/18	75.30 (2)	50.61 (2)				
3	rfsantacruz	2	06/04/18	69.56 (3)	45.58 (3)				
4	yangchen	2	06/09/18	69.44 (4)	45.30 (4)				
5	leobin	5	06/10/18	68.74 (5)	44.95 (5)				
6	howiewu	3	06/09/18	61.14 (6)	36.95 (6)				

Qualitative results: easy classes

- n01837072 frogmouth: insectivorous bird of Australia and southeastern Asia having a wide frog-like mouth.
- n02509815 lesser panda, red panda: reddish-brown Old World raccoon-like carnivore; in some classifications considered unrelated to the giant pandas



Qualitative results: hard classes

- n07574426 refection: a light meal or repast.
- n02952237 canopy: the transparent covering of an aircraft cockpit.





Modalities: Image, Query ID

Our method is based on the ResNet with a contrastive-additive network

Team: INFIMIND

Modalities: Image, Query ID

1 incepv4_train_original_data

2 incepv4_train_original_data_more_time

3 incepv4_train_original_data_and_the_same_label_distribute_like_val

4 incepv4_train_more_time

5 incepv4_train_more_time.

Team: EBD_birds

Modalities: Image, Query ID

Our method is based on the googlenet-bn and resnet50.

Entry 1: single model googlenet-bn A

Entry 2: model googlenet-bn A with five multicrop

Entry 3: model googlenet-bn A with ten multicrop

Entry 4: model googlenet-bn B with five multicrop

Entry 5: model googlenet-bn B with ten multicrop

Team: ACRV_ANU

Modilites: Image, Query ID

Architecture: Densenet121

- 1. sample the images according to the inverse of its frequency
- 2. explore self-supervised pre-training as way to promote robustness to label noise

Team: Overfit

Modalities: Image, Query ID

Architecture: SENet+ResneXt101, Inception v3, DenseNet

At the first stage, we use all noisy labeled data to train a 'coarse' network.

At the second stage, some clean samples are selected out based the confidence value. We only use those "clean" samples to train a 'fine' network at this stage.

At the third stage, We again use all images to train the network, which could bring some useful noise to make the network more robust.

Team: Vibranium

Modality: Image, Query ID

Class-weighted loss

Clustered-weighted sampling strategy

Instance-weighted sampling strategy

Multi-instance learning(MIL)

Model ensemble