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 Challenge 2018
Organized by 07wanglimin - Current server time: June 15, 2018, 8:01 a.m. UTC

<table>
<thead>
<tr>
<th>Previous</th>
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<th>End</th>
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<tr>
<td>Testing</td>
<td>Testing</td>
<td>Competition Ends</td>
</tr>
<tr>
<td>June 2, 2018, midnight UTC</td>
<td>June 2, 2018, midnight UTC</td>
<td>June 10, 2018, 11:59 p.m. UTC</td>
</tr>
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Learn the Details

Phases  Participate  Results  Forums

Overview
Evaluation
Terms and Conditions

Challenge
The goal of this challenge is to advance the area of learning knowledge and representation from web data. The 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/aerikur/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/~liwen/w/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

webvision

This package provides simple functions to verify and evaluate WebVision dataset. http://www.vision.ee.ethz.ch/webvision/

15 commits
1 branch
0 releases
1 contributor

Branch: master
New pull request

Latest commit 4be49e0 on Mar 25

.gitignore
Init repo

README.md
.

config.py
PEP8

eval.py
MOD update readme

util.py
PEP8
We have 6 teams to submit valid results to image classification track.
# Challenge Results: Classification Track

<table>
<thead>
<tr>
<th>#</th>
<th>User</th>
<th>Entries</th>
<th>Date of Last Entry</th>
<th>top-5 accuracy ▲</th>
<th>top-1 accuracy ▲</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>kivajok</td>
<td>4</td>
<td>06/10/18</td>
<td>79.20 (1)</td>
<td>55.89 (1)</td>
</tr>
<tr>
<td>2</td>
<td>thesouthfrog</td>
<td>5</td>
<td>06/10/18</td>
<td>75.30 (2)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>rfsantacruz</td>
<td>2</td>
<td>06/04/18</td>
<td>69.56 (3)</td>
<td>45.58 (3)</td>
</tr>
<tr>
<td>4</td>
<td>yangchen</td>
<td>2</td>
<td>06/09/18</td>
<td>69.44 (4)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>leobin</td>
<td>5</td>
<td>06/10/18</td>
<td>68.74 (5)</td>
<td>44.95 (5)</td>
</tr>
<tr>
<td>6</td>
<td>howiewwu</td>
<td>3</td>
<td>06/09/18</td>
<td>61.14 (6)</td>
<td>36.95 (6)</td>
</tr>
</tbody>
</table>
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 reflection: a light meal or repast.
- n02952237 canopy: the transparent covering of an aircraft cockpit.
Team: CMIC

**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 on 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