WIDER FACE: A Face Detection Benchmark

[Multimedia Laboratory, Department of Information Engineering, The Chinese University of Hong Kong](#)

- [Home](#)
- [Results](#)

Scale	**Pose**	**Occlusion**	**Expression**	**Makeup**	**Illumination**

News

- **2017-03-31** The new version of [evaluation code and validation results](#)are released.
- **2017-03-31** Add text version ground truth and fix rounding problem of bounding box annotations.
- **2016-08-19** Two new algorithms are added into leader-board.
- **2016-04-17** The face attribute labels i.e. pose and occlusion are available.
- **2015-11-19** Results of four baseline methods: ACF, Faceness, Multiscale Cascade CNN, and Two-stage CNN are released.
- **2015-11-19** WIDER FACE v1.0 is released with images, face bounding box annotations, and event category annotations.

Description

WIDER FACE dataset is a face detection benchmark dataset, of which images are selected from the publicly available [WIDER dataset](). We choose **32,203** images and label **393,703** faces with a high degree of variability in scale, pose and occlusion as depicted in the sample images. WIDER FACE dataset is organized based on 61 event classes. For each event class, we randomly select 40%/10%/50% data as training, validation and testing sets. We adopt the same evaluation metric employed in the [PASCAL VOC dataset](). Similar to [MALF]() and [Caltech]() datasets, we do not release bounding box ground truth for the test images. Users are required to submit final prediction files, which we shall proceed to evaluate.

Download

- Wider Face Training Images [Google Drive] [Baidu Drive]
- Wider Face Validation Images [Google Drive] [Baidu Drive]
- Wider Face Testing Images [Google Drive] [Baidu Drive]
- [Face annotations]()
- [Examples and formats of the submissions]()

Benchmark

For details on the evaluation scheme please refer to the [technical report]().
For detection resutls please refer to the [result page]().

- ***Scenario-Ext***: A face detector is trained using any external data, and tested on the WIDER FACE test partition.
- ***Scenario-Int***: A face detector is trained using WIDER FACE training/validation partitions, and tested on WIDER FACE test partition.

Submission

Please contact us to evaluate your detection results. An evaluation server will be available soon.
The detection result for each image should be a text file, with the same name of the image. The detection results are organized by the event categories. For example, if the directory of a testing image is "./0--Parade/0_Parade_marchingband_1_5.jpg", the detection result should be writtern in the text file in "./0--Parade/0_Parade_marchingband_1_5.txt". The detection output is expected in the follwing format:
...
< number of faces in this image = im >
< face i1 >
< face i2 >
...
< face im >
...

Each text file should contain 1 row per detected bounding box, in the format "[left, top, width, height, score]". Please see the output example files and the README if the above descriptions are unclear.

Related Datasets

Below we list other face detection datasets. A more detailed comparison of the datasets can be found in the paper.

- IJB-A dataset: IJB-A is proposed for face detection and face recognition. IJB-A contains 24,327 images and 49,759 faces.
- MALF dataset: MALF is the first face detection dataset that supports fine-gained evaluation. MALF consists of 5,250 images and 11,931 faces.
- FDDB dataset: FDDB dataset contains the annotations for 5,171 faces in a set of 2,845 images.
- AFW dataset: AFW dataset is built using Flickr images. It has 205 images with 473 labeled faces. For each face, annotations include a rectangular bounding box, 6 landmarks and the pose angles.

Citation

@inproceedings{yang2016wider,
Author = {Yang, Shuo and Luo, Ping and Loy, Chen Change and Tang, Xiaoou},
Booktitle = {IEEE Conference on Computer Vision and Pattern Recognition (CVPR)},
Title = {WIDER FACE: A Face Detection Benchmark},
Year = {2016}}

Contact

For questions and result submission, please contact Shuo Yang at **ys014@ie.cuhk.edu.hk**