tensorflow / **models**

Branch: **master** **models** / research / **object_detection** /

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tombstone update broken ssd models in the zoo along with notebook. Latest commit `f7e99c0` 14 days ago

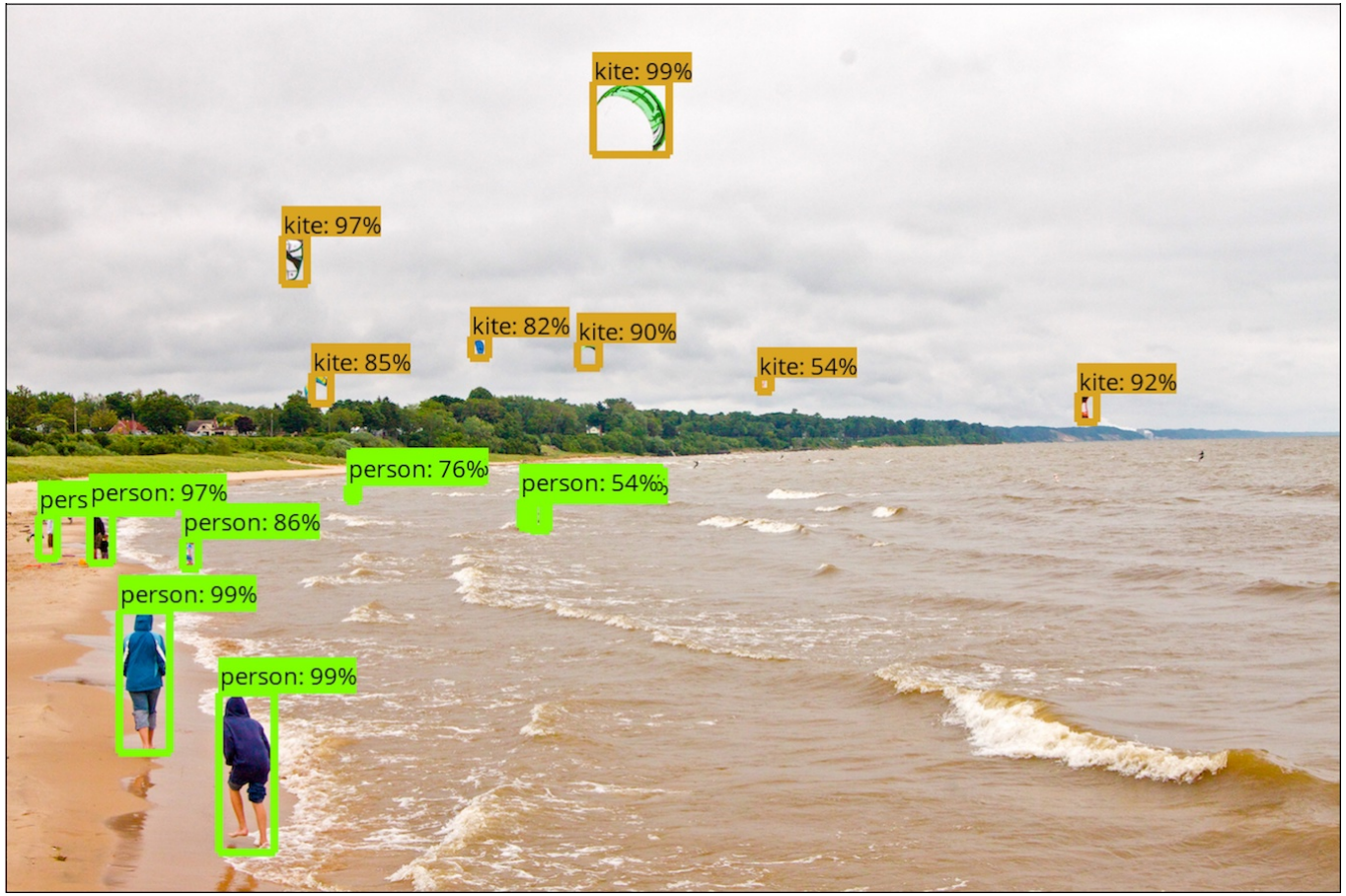
..		
anchor_generators	Allow ssd anchor generator to specify scales and	25 days ago
box_coders	update documentation in keypoint boxcoder.	a month ago
builders	fix preprocessor builder to pass correct kwargs to random_crop_pad op.	22 days ago
core	update post_processing module, builders, and meta architectures.	a month ago
data	add label maps for kitti and open image datasets.	a month ago
data_decoders	temporarily change tf_example_decoder to not depend on BackupHandler.	29 days ago
dataset_tools	minor updates in documentation.	14 days ago
g3doc	update broken ssd models in the zoo along with notebook.	14 days ago
inference	add inference tools for Open Image dataset.	14 days ago
matchers	Move the research models into a research subfolder (#2430)	2 months ago
meta_architectures	remove stale TODO.	a month ago
metrics	minor updates in documentation.	14 days ago
models	Fix nasnet image classification and object detection	a month ago
protos	update protos.	a month ago
samples	update model zoo to fix #2674.	22 days ago

test_images	Move the research models into a research subfolder (#2430)	2 months ago
utils	fixes #2713	25 days ago
BUILD	move data creation tools into a subfolder.	14 days ago
CONTRIBUTING.md	Move the research models into a research subfolder (#2430)	2 months ago
README.md	minor updates in documentation.	14 days ago
__init__.py	Move the research models into a research subfolder (#2430)	2 months ago
eval.py	* Change evalutor and eval_util.py to use new eval	a month ago
eval_util.py	* Change evalutor and eval_util.py to use new eval	a month ago
evaluator.py	* Change evalutor and eval_util.py to use new eval	a month ago
export_inference_graph.py	change DEFINE_list to DEFINE_string.	a month ago
exporter.py	update exporte changes.	a month ago
exporter_test.py	update exporte changes.	a month ago
faster_rcnn_inception_resnet_v2_a…	add open image dataset config.	14 days ago
object_detection_tutorial.ipynb	update broken ssd models in the zoo along with notebook.	14 days ago
train.py	refactor config parsing in train.py binaries and use functions in uti…	a month ago
trainer.py	refactor config parsing in train.py binaries and use functions in uti…	a month ago
trainer_test.py	refactor config parsing in train.py binaries and use functions in uti…	a month ago

README.md

Tensorflow Object Detection API

Creating accurate machine learning models capable of localizing and identifying multiple objects in a single image remains a core challenge in computer vision. The TensorFlow Object Detection API is an open source framework built on top of TensorFlow that makes it easy to construct, train and deploy object detection models. At Google we've certainly found this codebase to be useful for our computer vision needs, and we hope that you will as well.



Contributions to the codebase are welcome and we would love to hear back from you if you find this API useful. Finally if you use the Tensorflow Object Detection API for a research publication, please consider citing:

```
"Speed/accuracy trade-offs for modern convolutional object detectors."
Huang J, Rathod V, Sun C, Zhu M, Korattikara A, Fathi A, Fischer I, Wojna Z,
Song Y, Guadarrama S, Murphy K, CVPR 2017
```

[link][bibtex]

Maintainers

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- Chen Sun, github: jesu9
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- Defining your own model architecture
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- Inference and evaluation on the Open Images dataset

Getting Help

To get help with issues you may encounter using the Tensorflow Object Detection API, create a new question on StackOverflow with the tags "tensorflow" and "object-detection".

Please report bugs (actually broken code, not usage questions) to the tensorflow/models Github issue tracker, prefixing the issue name with "object_detection".

Release information

November 17, 2017

As a part of the Open Images V3 release we have released:

- An implementation of the Open Images evaluation metric and the protocol.
- Additional tools to separate inference of detection and evaluation (see this tutorial).
- A new detection model trained on the Open Images V2 data release (see Open Images model).

See more information on the Open Images website!

Thanks to contributors: Stefan Popov, Alina Kuznetsova

November 6, 2017

We have re-released faster versions of our (pre-trained) models in the model zoo. In addition to what was available before, we are also adding Faster R-CNN models trained on COCO with Inception V2 and Resnet-50 feature extractors, as well as a Faster R-CNN with Resnet-101 model trained on the KITTI dataset.

Thanks to contributors: Jonathan Huang, Vivek Rathod, Derek Chow, Tal Remez, Chen Sun.

October 31, 2017

We have released a new state-of-the-art model for object detection using the Faster-RCNN with the NASNet-A image featurization. This model achieves mAP of 43.1% on the test-dev validation dataset for COCO, improving on the best available model in the zoo by 6% in terms of absolute mAP.

Thanks to contributors: Barret Zoph, Vijay Vasudevan, Jonathon Shlens, Quoc Le

August 11, 2017

We have released an update to the Android Detect demo which will now run models trained using the Tensorflow Object Detection API on an Android device. By default, it currently runs a frozen SSD w/Mobilenet detector trained on COCO, but we encourage you to try out other detection models!

Thanks to contributors: Jonathan Huang, Andrew Harp

June 15, 2017

In addition to our base Tensorflow detection model definitions, this release includes:

- A selection of trainable detection models, including:
  - Single Shot Multibox Detector (SSD) with MobileNet,
  - SSD with Inception V2,
  - Region-Based Fully Convolutional Networks (R-FCN) with Resnet 101,
  - Faster RCNN with Resnet 101,
  - Faster RCNN with Inception Resnet v2
- Frozen weights (trained on the COCO dataset) for each of the above models to be used for out-of-the-box inference purposes.
- A Jupyter notebook for performing out-of-the-box inference with one of our released models
- Convenient local training scripts as well as distributed training and evaluation pipelines via Google Cloud.

Thanks to contributors: Jonathan Huang, Vivek Rathod, Derek Chow, Chen Sun, Menglong Zhu, Matthew Tang, Anoop Korattikara, Alireza Fathi, Ian Fischer, Zbigniew Wojna, Yang Song, Sergio Guadarrama, Jasper Uijlings, Viacheslav Kovalevskyi, Kevin Murphy