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fcn 2.0.0

Fully Convolutional Networks

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fcn-2.0.0.tar.gz

Latest Version: 6.1.7

fcn - Fully Convolutional Networks
==========

.. image:: https://badge.fury.io/gh/wkentaro%2Ffcn.svg
:target: https://badge.fury.io/gh/wkentaro%2Ffcn
.. image:: https://travis-ci.org/wkentaro/fcn.svg?branch=master
:target: https://travis-ci.org/wkentaro/fcn

This is Chainer_ implementation of fcn.berkeleyvision.org_.

.. _fcn.berkeleyvision.org: https://github.com/shelhamer/fcn.berkeleyvision.org.git
.. _Chainer: https://github.com/pfnet/chainer.git

Features

- Provide FCN8s model for Chainer. [v1.0.0_]
- Copy caffemodel to chainermodel. [v1.0.0_]
- Forwarding with Chainer for pascal dataset. [v1.0.0_]
- Training with Chainer for pascal dataset. [v2.0.0_]
- Training for APC2015 dataset. [**not yet**]

.. _v1.0.0: https://github.com/wkentaro/fcn/releases/tag/v1.0.0
.. _v2.0.0: https://github.com/wkentaro/fcn/releases/tag/v2.0.0

License

For Beginners

Installation
++++++++++++

.. code-block:: bash

pip install fcn

Forwarding
++++++++++

Forwarding is done as below, and computation graph is `here <https: github.com="" wkentaro="" fcn="" blob="" master="" _images="" fcn8s_forward.jpg="">`_.

.. code-block:: bash

Download sample image
wget https://farm2.staticflickr.com/1522/26471792680_a485afb024_z_d.jpg -O sample.jpg

forwaring of the networks
fcn_forward.py --img-files sample.jpg --gpu -1 # cpu mode
fcn_forward.py --img-files sample.jpg # gpu mode

.. image:: https://raw.githubusercontent.com/wkentaro/fcn/master/_images/26471792680.jpg

Original Image: https://www.flickr.com/photos/faceme/26471792680/

For Developers

Installation
++++++++++++

.. code-block:: bash

git clone https://github.com/wkentaro/fcn.git

cd fcn

python setup.py install

You need to download pascal VOC2012 dataset from `here <http: host.robots.ox.ac.uk="" pascal="" voc="" voc2012=""/>`_,
and install it as below construction::

- fcn - data - pascal - VOC2012 -- JPEGImages
- SegmentationClass
- ...

Fowarding
+++++++++

Forwarding with trained model in caffe is done as below:

.. code-block:: bash

This downloads caffemodel and convert it to chainermodel
./scripts/caffe_to_chainermodel.py

forwarding of the networks
./scripts/fcn_forward.py --img-files data/pascal/VOC2012/JPEGImages/2007_000129.jpg

.. image:: https://raw.githubusercontent.com/wkentaro/fcn/master/_images/2007_000129.jpg

Original Image: http://host.robots.ox.ac.uk/pascal/VOC/voc2012/

Training
++++++++

.. code-block:: bash

./scripts/fcn_train.py

Currently we support only training FCN32s.
The learning curve looks like below:

.. image:: https://raw.githubusercontent.com/wkentaro/fcn/master/_images/fcn32s_learning_curve.png

Forwarding with ``fcn32s_60000.chainermodel`` ends with below result:

.. image:: https://raw.githubusercontent.com/wkentaro/fcn/master/_images/fcn32s_2007_000129.jpg

File	Type	Py Version	Uploaded on	Size
fcn-2.0.0.tar.gz (**md5**)	Source		2016-05-14	1MB

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Home Page: http://github.com/wkentaro/fcn
Keywords: machine-learning
License: MIT
Categories
- **Development Status :: 5 - Production/Stable**
- **Intended Audience :: Developers**
- **License :: OSI Approved :: MIT License**
- **Operating System :: POSIX**
- **Topic :: Internet :: WWW/HTTP**

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