Chapter – 1 (implementation – Part 1 - installation)

**Computer Vision**

**OpenCV: face detection**

Intro

Installation

Implementation

**1.1 Installation**

Following is YML installer for Conda ENV. This file is named "**virtual\_platform\_windows.yml**".

|  |  |
| --- | --- |
| name: virtual\_platform  channels:  - menpo  - conda-forge  - peterjc123  - defaults  dependencies:  - ffmpeg=3.2.4=1  - freetype=2.7=vc14\_1  - imageio=2.2.0=py35\_0  - libtiff=4.0.6=vc14\_7  - olefile=0.44=py35\_0  - pillow=4.2.1=py35\_0  - vc=14=0  - alabaster=0.7.10=py35\_0  - astroid=1.5.3=py35\_0  - babel=2.5.0=py35\_0  - bleach=1.5.0=py35\_0  - certifi=2016.2.28=py35\_0  - cffi=1.10.0=py35\_0  - chardet=3.0.4=py35\_0  - colorama=0.3.9=py35\_0  - decorator=4.1.2=py35\_0  - docutils=0.14=py35\_0  - entrypoints=0.2.3=py35\_0  - html5lib=0.9999999=py35\_0  - icu=57.1=vc14\_0  - imagesize=0.7.1=py35\_0  - ipykernel=4.6.1=py35\_0  - ipython=6.1.0=py35\_0  - ipython\_genutils=0.2.0=py35\_0  - isort=4.2.15=py35\_0  - jedi=0.10.2=py35\_2  - jinja2=2.9.6=py35\_0  - jpeg=9b=vc14\_0  - jsonschema=2.6.0=py35\_0  - jupyter\_client=5.1.0=py35\_0  - jupyter\_core=4.3.0=py35\_0  - lazy-object-proxy=1.3.1=py35\_0  - libpng=1.6.30=vc14\_1  - markupsafe=1.0=py35\_0  - mistune=0.7.4=py35\_0  - mkl=2017.0.3=0  - nbconvert=5.2.1=py35\_0  - nbformat=4.4.0=py35\_0  - numpy=1.13.1=py35\_0  - numpydoc=0.7.0=py35\_0  - openssl=1.0.2l=vc14\_0 | - pandocfilters=1.4.2=py35\_0  - path.py=10.3.1=py35\_0  - pickleshare=0.7.4=py35\_0  - pip=9.0.1=py35\_1  - prompt\_toolkit=1.0.15=py35\_0  - psutil=5.2.2=py35\_0  - pycodestyle=2.3.1=py35\_0  - pycparser=2.18=py35\_0  - pyflakes=1.6.0=py35\_0  - pygments=2.2.0=py35\_0  - pylint=1.7.2=py35\_0  - pyqt=5.6.0=py35\_2  - **python=3.5.4=0**  - python-dateutil=2.6.1=py35\_0  - pytz=2017.2=py35\_0  - pyzmq=16.0.2=py35\_0  - qt=5.6.2=vc14\_6  - qtawesome=0.4.4=py35\_0  - qtconsole=4.3.1=py35\_0  - qtpy=1.3.1=py35\_0  - requests=2.14.2=py35\_0  - rope=0.9.4=py35\_1  - setuptools=36.4.0=py35\_1  - simplegeneric=0.8.1=py35\_1  - singledispatch=3.4.0.3=py35\_0  - sip=4.18=py35\_0  - six=1.10.0=py35\_1  - snowballstemmer=1.2.1=py35\_0  - sphinx=1.6.3=py35\_0  - sphinxcontrib=1.0=py35\_0  - sphinxcontrib-websupport=1.0.1=py35\_0  - spyder=3.2.3=py35\_0  - testpath=0.3.1=py35\_0  - tornado=4.5.2=py35\_0  - traitlets=4.3.2=py35\_0  - vs2015\_runtime=14.0.25420=0  - wcwidth=0.1.7=py35\_0  - wheel=0.29.0=py35\_0  - win\_unicode\_console=0.5=py35\_0  - wincertstore=0.2=py35\_0  - wrapt=1.10.11=py35\_0  - zlib=1.2.11=vc14\_0  - opencv3=3.1.0=py35\_0  - pytorch=0.1.12=py35\_0.1.12cu80  - pip:    - **ipython-genutils==0.2.0**    - **jupyter-client==5.1.0**    - **jupyter-core==4.3.0**    - **prompt-toolkit==1.0.15**    - **pyyaml==3.12**    - **rope-py3k==0.9.4.post1**    - **torch==0.1.12**    - **torchvision==0.1.9**    - **win-unicode-console==0.5** |

* Installation (conda cmd):

Run this .yml file in "Anaconda-prompt".

First set the directory to this ".yml" file's location.

**cd yml\_directory**

then:

**conda env create –f virtual\_platform\_windows.yml**

We'll use Python 3.5 because 3.6 has some issues with Pytorch.

We have already created a environment for ChatBot implementation. We'll try to use it for our OpenCv project.

* Conda prompts:
* See the list of environments:

conda env list

base

bestCTBT

py354

py354TF1\_4

* Select/activate an environment

conda activate py354

* Install a package in a conda env:

Use **conda install** ... instead of using **pip**

You can install a conda package also without activating the environment. Just use

conda install -n <env\_name> <package>

or

conda install -p <path/to/env> <package>

* List of installed packages:

conda list

# Name Version Build Channel

alabaster 0.7.12 pyhd3eb1b0\_0

asn1crypto 1.4.0 py\_0

astroid 1.6.5 py35\_0

babel 2.9.0 pyhd3eb1b0\_0

bleach 3.3.1 pyhd3eb1b0\_0

ca-certificates 2023.01.10 haa95532\_0

certifi 2020.6.20 pyhd3eb1b0\_3

cffi 1.11.5 py35h74b6da3\_1

chardet 3.0.4 py35\_1

cloudpickle 1.6.0 pyhd3eb1b0\_0

colorama 0.4.4 pyhd3eb1b0\_0

cryptography 2.3.1 py35h74b6da3\_0

decorator 5.1.1 pyhd3eb1b0\_0

defusedxml 0.7.1 pyhd3eb1b0\_0

docutils 0.14 py35h8ccb97f\_0

entrypoints 0.2.3 py35\_2

icu 58.2 ha925a31\_3

idna 2.10 pyhd3eb1b0\_0

imagesize 1.3.0 pyhd3eb1b0\_0

ipykernel 4.10.0 py35\_0

ipython 5.8.0 py35\_0

ipython\_genutils 0.2.0 pyhd3eb1b0\_1

isort 4.3.4 py35\_0

jedi 0.12.1 py35\_0

jinja2 2.11.3 pyhd3eb1b0\_0

jpeg 9e h2bbff1b\_0

jsonschema 2.6.0 py35h27d56d3\_0

jupyter\_client 5.3.3 py\_0

jupyter\_core 4.5.0 py\_0

keyring 13.2.1 py35\_0

lazy-object-proxy 1.3.1 py35hfa6e2cd\_2

libpng 1.6.37 h2a8f88b\_0

libsodium 1.0.16 h9d3ae62\_0

markupsafe 1.0 py35hfa6e2cd\_1

mccabe 0.6.1 py35\_1

mistune 0.8.3 py35hfa6e2cd\_1

nbconvert 5.5.0 py\_0

nbformat 5.1.3 pyhd3eb1b0\_0

numpy 1.18.5 pypi\_0 pypi

numpydoc 1.1.0 pyhd3eb1b0\_1

openssl 1.0.2u he774522\_0

packaging 20.9 pyhd3eb1b0\_0

pandoc 2.12 haa95532\_1

pandocfilters 1.5.0 pyhd3eb1b0\_0

parso 0.8.0 py\_0

pickleshare 0.7.5 pyhd3eb1b0\_1003

pip 10.0.1 py35\_0

prompt\_toolkit 1.0.15 py35h89c7cb4\_0

protobuf 3.19.4 pypi\_0 pypi

psutil 5.4.7 py35hfa6e2cd\_0

pycodestyle 2.7.0 pyhd3eb1b0\_0

pycparser 2.20 py\_2

pyflakes 2.4.0 pyhd3eb1b0\_0

pygments 2.11.2 pyhd3eb1b0\_0

pylint 1.9.2 py35\_0

pyopenssl 18.0.0 py35\_0

pyparsing 2.4.7 pyhd3eb1b0\_0

pyqt 5.9.2 py35h6538335\_2

pysocks 1.6.8 py35\_0

python 3.5.4 h1357f44\_23

python-dateutil 2.8.2 pyhd3eb1b0\_0

pytz 2021.3 pyhd3eb1b0\_0

pywin32 223 py35hfa6e2cd\_1

pyzmq 17.1.2 py35hfa6e2cd\_0

qt 5.9.6 vc14h1e9a669\_2

qtawesome 1.0.1 py\_0

qtconsole 4.7.7 py\_0

qtpy 1.11.2 pyhd3eb1b0\_0

requests 2.25.1 pyhd3eb1b0\_0

rope 0.22.0 pyhd3eb1b0\_0

setuptools 40.2.0 py35\_0

simplegeneric 0.8.1 py35\_2

sip 4.19.8 py35h6538335\_0

six 1.16.0 pyhd3eb1b0\_1

snowballstemmer 2.1.0 pyhd3eb1b0\_0

sphinx 3.5.3 pyhd3eb1b0\_0

sphinxcontrib-applehelp 1.0.2 pyhd3eb1b0\_0

sphinxcontrib-devhelp 1.0.2 pyhd3eb1b0\_0

sphinxcontrib-htmlhelp 1.0.3 pyhd3eb1b0\_0

sphinxcontrib-jsmath 1.0.1 pyhd3eb1b0\_0

sphinxcontrib-qthelp 1.0.3 pyhd3eb1b0\_0

sphinxcontrib-serializinghtml 1.1.5 pyhd3eb1b0\_0

spyder 3.3.1 py35\_1

spyder-kernels 0.2.6 py35\_0

sqlite 3.40.1 h2bbff1b\_0

tensorflow 1.0.0 pypi\_0 pypi

testpath 0.4.4 pyhd3eb1b0\_0

tornado 5.1.1 py35hfa6e2cd\_0

traitlets 4.3.2 py35h09b975b\_0

urllib3 1.23 py35\_0

vc 14.2 h21ff451\_1

vs2015\_runtime 14.27.29016 h5e58377\_2

wcwidth 0.2.5 pyhd3eb1b0\_0

webencodings 0.5.1 py35\_1

wheel 0.37.1 pyhd3eb1b0\_0

win\_inet\_pton 1.0.1 py35\_1

win\_unicode\_console 0.5 py35h56988b5\_0

wincertstore 0.2 py35hfebbdb8\_0

wrapt 1.10.11 py35hfa6e2cd\_2

zeromq 4.2.5 he025d50\_1

zlib 1.2.13 h8cc25b3\_0

(py354) C:\WINDOWS\system32>

* Filter the uninstalled "Dependencies" from given .yml:

Using python:

|  |  |
| --- | --- |
| yml\_lists = [  "ffmpeg=3.2.4=1",  "freetype=2.7=vc14\_1",  "imageio=2.2.0=py35\_0",  "libtiff=4.0.6=vc14\_7",  "olefile=0.44=py35\_0",  "pillow=4.2.1=py35\_0",  "vc=14=0",  "alabaster=0.7.10=py35\_0",  "astroid=1.5.3=py35\_0",  "babel=2.5.0=py35\_0",  "bleach=1.5.0=py35\_0",  "certifi=2016.2.28=py35\_0",  "cffi=1.10.0=py35\_0",  "chardet=3.0.4=py35\_0",  "colorama=0.3.9=py35\_0",  "decorator=4.1.2=py35\_0",  "docutils=0.14=py35\_0",  "entrypoints=0.2.3=py35\_0",  "html5lib=0.9999999=py35\_0",  "icu=57.1=vc14\_0",  "imagesize=0.7.1=py35\_0",  "ipykernel=4.6.1=py35\_0",  "ipython=6.1.0=py35\_0",  "ipython\_genutils=0.2.0=py35\_0",  "isort=4.2.15=py35\_0",  "jedi=0.10.2=py35\_2",  "jinja2=2.9.6=py35\_0",  "jpeg=9b=vc14\_0",  "jsonschema=2.6.0=py35\_0",  "jupyter\_client=5.1.0=py35\_0",  "jupyter\_core=4.3.0=py35\_0",  "lazy-object-proxy=1.3.1=py35\_0",  "libpng=1.6.30=vc14\_1",  "markupsafe=1.0=py35\_0",  "mistune=0.7.4=py35\_0",  "mkl=2017.0.3=0",  "nbconvert=5.2.1=py35\_0",  "nbformat=4.4.0=py35\_0",  "numpy=1.13.1=py35\_0",  "numpydoc=0.7.0=py35\_0",  "openssl=1.0.2l=vc14\_0",  "pandocfilters=1.4.2=py35\_0",  "path.py=10.3.1=py35\_0",  "pickleshare=0.7.4=py35\_0",  "pip=9.0.1=py35\_1",  "prompt\_toolkit=1.0.15=py35\_0",  "psutil=5.2.2=py35\_0",  "pycodestyle=2.3.1=py35\_0",  "pycparser=2.18=py35\_0",  "pyflakes=1.6.0=py35\_0",  "pygments=2.2.0=py35\_0",  "pylint=1.7.2=py35\_0",  "pyqt=5.6.0=py35\_2",  "python=3.5.4=0",  "python-dateutil=2.6.1=py35\_0",  "pytz=2017.2=py35\_0",  "pyzmq=16.0.2=py35\_0",  "qt=5.6.2=vc14\_6",  "qtawesome=0.4.4=py35\_0",  "qtconsole=4.3.1=py35\_0",  "qtpy=1.3.1=py35\_0",  "requests=2.14.2=py35\_0",  "rope=0.9.4=py35\_1",  "setuptools=36.4.0=py35\_1",  "simplegeneric=0.8.1=py35\_1",  "singledispatch=3.4.0.3=py35\_0",  "sip=4.18=py35\_0",  "six=1.10.0=py35\_1",  "snowballstemmer=1.2.1=py35\_0",  "sphinx=1.6.3=py35\_0",  "sphinxcontrib=1.0=py35\_0",  "sphinxcontrib-websupport=1.0.1=py35\_0",  "spyder=3.2.3=py35\_0",  "testpath=0.3.1=py35\_0",  "tornado=4.5.2=py35\_0",  "traitlets=4.3.2=py35\_0",  "vs2015\_runtime=14.0.25420=0",  "wcwidth=0.1.7=py35\_0",  "wheel=0.29.0=py35\_0",  "win\_unicode\_console=0.5=py35\_0",  "wincertstore=0.2=py35\_0",  "wrapt=1.10.11=py35\_0",  "zlib=1.2.11=vc14\_0",  "opencv3=3.1.0=py35\_0",  "pytorch=0.1.12=py35\_0.1.12cu80"  ]  pip\_list = [  "ipython-genutils==0.2.0",  "jupyter-client==5.1.0",  "jupyter-core==4.3.0",  "prompt-toolkit==1.0.15",  "pyyaml==3.12",  "rope-py3k==0.9.4.post1",  "torch==0.1.12",  "torchvision==0.1.9",  "win-unicode-console==0.5"  ] | # *-----------------    installed in conda env    -----------------*  installed\_list = [  "alabaster                 0.7.12             pyhd3eb1b0\_0",  "asn1crypto                1.4.0                      py\_0",  "astroid                   1.6.5                    py35\_0",  "babel                     2.9.0              pyhd3eb1b0\_0",  "bleach                    3.3.1              pyhd3eb1b0\_0",  "ca-certificates           2023.01.10           haa95532\_0",  "certifi                   2020.6.20          pyhd3eb1b0\_3",  "cffi                      1.11.5           py35h74b6da3\_1",  "chardet                   3.0.4                    py35\_1",  "cloudpickle               1.6.0              pyhd3eb1b0\_0",  "colorama                  0.4.4              pyhd3eb1b0\_0",  "cryptography              2.3.1            py35h74b6da3\_0",  "decorator                 5.1.1              pyhd3eb1b0\_0",  "defusedxml                0.7.1              pyhd3eb1b0\_0",  "docutils                  0.14             py35h8ccb97f\_0",  "entrypoints               0.2.3                    py35\_2",  "icu                       58.2                 ha925a31\_3",  "idna                      2.10               pyhd3eb1b0\_0",  "imagesize                 1.3.0              pyhd3eb1b0\_0",  "ipykernel                 4.10.0                   py35\_0",  "ipython                   5.8.0                    py35\_0",  "ipython\_genutils          0.2.0              pyhd3eb1b0\_1",  "isort                     4.3.4                    py35\_0",  "jedi                      0.12.1                   py35\_0",  "jinja2                    2.11.3             pyhd3eb1b0\_0",  "jpeg                      9e                   h2bbff1b\_0",  "jsonschema                2.6.0            py35h27d56d3\_0",  "jupyter\_client            5.3.3                      py\_0",  "jupyter\_core              4.5.0                      py\_0",  "keyring                   13.2.1                   py35\_0",  "lazy-object-proxy         1.3.1            py35hfa6e2cd\_2",  "libpng                    1.6.37               h2a8f88b\_0",  "libsodium                 1.0.16               h9d3ae62\_0",  "markupsafe                1.0              py35hfa6e2cd\_1",  "mccabe                    0.6.1                    py35\_1",  "mistune                   0.8.3            py35hfa6e2cd\_1",  "nbconvert                 5.5.0                      py\_0",  "nbformat                  5.1.3              pyhd3eb1b0\_0",  "numpy                     1.18.5                   pypi\_0    pypi",  "numpydoc                  1.1.0              pyhd3eb1b0\_1",  "openssl                   1.0.2u               he774522\_0",  "packaging                 20.9               pyhd3eb1b0\_0",  "pandoc                    2.12                 haa95532\_1",  "pandocfilters             1.5.0              pyhd3eb1b0\_0",  "parso                     0.8.0                      py\_0",  "pickleshare               0.7.5           pyhd3eb1b0\_1003",  "pip                       10.0.1                   py35\_0",  "prompt\_toolkit            1.0.15           py35h89c7cb4\_0",  "protobuf                  3.19.4                   pypi\_0    pypi",  "psutil                    5.4.7            py35hfa6e2cd\_0",  "pycodestyle               2.7.0              pyhd3eb1b0\_0",  "pycparser                 2.20                       py\_2",  "pyflakes                  2.4.0              pyhd3eb1b0\_0",  "pygments                  2.11.2             pyhd3eb1b0\_0",  "pylint                    1.9.2                    py35\_0",  "pyopenssl                 18.0.0                   py35\_0",  "pyparsing                 2.4.7              pyhd3eb1b0\_0",  "pyqt                      5.9.2            py35h6538335\_2",  "pysocks                   1.6.8                    py35\_0",  "python                    3.5.4               h1357f44\_23",  "python-dateutil           2.8.2              pyhd3eb1b0\_0",  "pytz                      2021.3             pyhd3eb1b0\_0",  "pywin32                   223              py35hfa6e2cd\_1",  "pyzmq                     17.1.2           py35hfa6e2cd\_0",  "qt                        5.9.6            vc14h1e9a669\_2",  "qtawesome                 1.0.1                      py\_0",  "qtconsole                 4.7.7                      py\_0",  "qtpy                      1.11.2             pyhd3eb1b0\_0",  "requests                  2.25.1             pyhd3eb1b0\_0",  "rope                      0.22.0             pyhd3eb1b0\_0",  "setuptools                40.2.0                   py35\_0",  "simplegeneric             0.8.1                    py35\_2",  "sip                       4.19.8           py35h6538335\_0",  "six                       1.16.0             pyhd3eb1b0\_1",  "snowballstemmer           2.1.0              pyhd3eb1b0\_0",  "sphinx                    3.5.3              pyhd3eb1b0\_0",  "sphinxcontrib-applehelp   1.0.2              pyhd3eb1b0\_0",  "sphinxcontrib-devhelp     1.0.2              pyhd3eb1b0\_0",  "sphinxcontrib-htmlhelp    1.0.3              pyhd3eb1b0\_0",  "sphinxcontrib-jsmath      1.0.1              pyhd3eb1b0\_0",  "sphinxcontrib-qthelp      1.0.3              pyhd3eb1b0\_0",  "sphinxcontrib-serializinghtml 1.1.5              pyhd3eb1b0\_0",  "spyder                    3.3.1                    py35\_1",  "spyder-kernels            0.2.6                    py35\_0",  "sqlite                    3.40.1               h2bbff1b\_0",  "tensorflow                1.0.0                    pypi\_0    pypi",  "testpath                  0.4.4              pyhd3eb1b0\_0",  "tornado                   5.1.1            py35hfa6e2cd\_0",  "traitlets                 4.3.2            py35h09b975b\_0",  "urllib3                   1.23                     py35\_0",  "vc                        14.2                 h21ff451\_1",  "vs2015\_runtime            14.27.29016          h5e58377\_2",  "wcwidth                   0.2.5              pyhd3eb1b0\_0",  "webencodings              0.5.1                    py35\_1",  "wheel                     0.37.1             pyhd3eb1b0\_0",  "win\_inet\_pton             1.0.1                    py35\_1",  "win\_unicode\_console       0.5              py35h56988b5\_0",  "wincertstore              0.2              py35hfebbdb8\_0",  "wrapt                     1.10.11          py35hfa6e2cd\_2",  "zeromq                    4.2.5                he025d50\_1",  "zlib                      1.2.13               h8cc25b3\_0"  ] |

pip\_pack = [**strs.split**('==')[0] **for** strs **in** pip\_list]

pip\_pack\_dict = {**strs.split**('==')[0] : **strs.split**('==')[1]  **for** strs **in** pip\_list}

yml\_dict = {**strs.split**('=')[0] : **strs.split**('=')[1]  **for** strs **in** yml\_lists}

installed\_list\_list = [**strs.split**(' ')  **for** strs **in** installed\_list]

no\_spc\_installed\_list\_list = []

# *to remove duplicates from list*

**for** ls **in** installed\_list\_list:

    # *print(ls)*

    ls\_1 = [x **for** x **in** ls **if** **len**(**str**(x))**>**1]

**print**(ls\_1)

**no\_spc\_installed\_list\_list.append**(ls\_1)

# *printing list after removal*

**print**(no\_spc\_installed\_list\_list)

installed\_list\_names = [ls[0] **for** ls **in** no\_spc\_installed\_list\_list]

# *filter the "Dependencies"*

need\_to\_install = []

**for** key **in** **yml\_dict.keys**():

**if** key **not** **in** installed\_list\_names:

**need\_to\_install.append**([key, yml\_dict[key]])

**for** key **in** **pip\_pack\_dict.keys**():

**if** key **not** **in** installed\_list\_names:

**need\_to\_install.append**([key, pip\_pack\_dict[key]])

**for** need\_instl **in** need\_to\_install:

**print**(f"conda install {need\_instl[0]}=={need\_instl[1]}")

'''

conda install ffmpeg==3.2.4

conda install freetype==2.7

conda install imageio==2.2.0

conda install libtiff==4.0.6

conda install olefile==0.44

conda install pillow==4.2.1

conda install html5lib==0.9999999

conda install mkl==2017.0.3

conda install path.py==10.3.1

conda install singledispatch==3.4.0.3

conda install sphinxcontrib==1.0

conda install sphinxcontrib-websupport==1.0.1

conda install opencv3==3.1.0

conda install pytorch==0.1.12

conda install ipython-genutils==0.2.0

conda install jupyter-client==5.1.0

conda install jupyter-core==4.3.0

conda install prompt-toolkit==1.0.15

conda install pyyaml==3.12

conda install rope-py3k==0.9.4.post1

conda install torch==0.1.12

conda install torchvision==0.1.9

conda install win-unicode-console==0.5

'''

# *python filter\_dependencies.py*

If above are not available, GOOGLE the package and download them, use <https://pypi.org/>

pip install opencv-python==3.4.0.14

pip install imageio==2.2.0

pip install html5lib==0.9999999

pip install mkl==2018.0.0

pip install path.py==10.4

pip install singledispatch==3.4.0.3

pip install sphinxcontrib-websupport==1.0.1

--- pip install sphinxcontrib

pip install sphinxcontrib-packages==1.0.0

pip install ipython\_genutils==0.2.0

pip install pytorch==0.1.2

pip install pyyaml==3.12

pip install rope-py3k==0.9.4.post1

pip install win-unicode-console==0.5

**You can also install from the local directory by providing the path of the .whl file:**

pip install path/to/package\_name.whl

pip install E:/1\_Development\_2.0/ML\_phase\_4\_prj\_2\_CmpVsn/torch-0.4.1-cp35-cp35m-win\_amd64.whl

pip install E:/1\_Development\_2.0/ML\_phase\_4\_prj\_2\_CmpVsn/torchvision-0.1.6-py3-none-any.whl

If torch cause problem in installation:

pip install jupyter\_client==5.3.3

pip install jupyter-core==4.5.0

To create an environment, use following code:

'''

Install following to create a specific environment.:

    conda create --name py354 python=3.5.4

    conda activate py354

    pip install protobuf==3.19.4

    pip install tensorflow==1.0.0

    conda install ipykernel

    conda install spyder

 '''

**(py354) C:\Users>conda list**

# packages in environment at C:\Users\anaconda3\envs\py354:

#

# Name Version Build Channel

alabaster 0.7.12 pyhd3eb1b0\_0

asn1crypto 1.4.0 py\_0

astroid 1.6.5 py35\_0

babel 2.9.0 pyhd3eb1b0\_0

bleach 3.3.1 pyhd3eb1b0\_0

ca-certificates 2023.05.30 haa95532\_0

certifi 2020.6.20 pyhd3eb1b0\_3

cffi 1.11.5 py35h74b6da3\_1

chardet 3.0.4 py35\_1

cloudpickle 1.6.0 pyhd3eb1b0\_0

colorama 0.4.4 pyhd3eb1b0\_0

cryptography 2.3.1 py35h74b6da3\_0

decorator 5.1.1 pyhd3eb1b0\_0

defusedxml 0.7.1 pyhd3eb1b0\_0

docutils 0.14 py35h8ccb97f\_0

entrypoints 0.2.3 py35\_2

ffmpeg 4.2.2 he774522\_0

freetype 2.8 h51f8f2c\_1

html5lib 0.9999999 pypi\_0 pypi

icu 58.2 ha925a31\_3

idna 2.10 pyhd3eb1b0\_0

imageio 2.2.0 pypi\_0 pypi

imagesize 1.3.0 pyhd3eb1b0\_0

intel-openmp 2018.0.0 pypi\_0 pypi

ipykernel 4.10.0 py35\_0

ipython 5.8.0 py35\_0

ipython\_genutils 0.2.0 pyhd3eb1b0\_1

isort 4.3.4 py35\_0

jedi 0.12.1 py35\_0

jinja2 2.11.3 pyhd3eb1b0\_0

jpeg 9e h2bbff1b\_0

jsonschema 2.6.0 py35h27d56d3\_0

jupyter\_client 5.3.3 py\_0

jupyter\_core 4.5.0 py\_0

keyring 13.2.1 py35\_0

lazy-object-proxy 1.3.1 py35hfa6e2cd\_2

lerc 3.0 hd77b12b\_0

libdeflate 1.17 h2bbff1b\_0

libpng 1.6.37 h2a8f88b\_0

libsodium 1.0.16 h9d3ae62\_0

libtiff 4.5.0 h6c2663c\_2

lz4-c 1.9.4 h2bbff1b\_0

markupsafe 1.0 py35hfa6e2cd\_1

mccabe 0.6.1 py35\_1

mistune 0.8.3 py35hfa6e2cd\_1

mkl 2018.0.0 pypi\_0 pypi

nbconvert 5.5.0 py\_0

nbformat 5.1.3 pyhd3eb1b0\_0

numpy 1.18.5 pypi\_0 pypi

numpydoc 1.1.0 pyhd3eb1b0\_1

olefile 0.46 py35\_0

opencv-python 3.4.0.14 pypi\_0 pypi

openssl 1.0.2u he774522\_0

packaging 20.9 pyhd3eb1b0\_0

pandoc 2.12 haa95532\_1

pandocfilters 1.5.0 pyhd3eb1b0\_0

parso 0.8.0 py\_0

path-py 10.4 pypi\_0 pypi

pickleshare 0.7.5 pyhd3eb1b0\_1003

pillow 4.2.1 py35hd7da350\_0

pip 10.0.1 py35\_0

prompt\_toolkit 1.0.15 py35h89c7cb4\_0

protobuf 3.19.4 pypi\_0 pypi

psutil 5.4.7 py35hfa6e2cd\_0

pycodestyle 2.7.0 pyhd3eb1b0\_0

pycparser 2.20 py\_2

pyflakes 2.4.0 pyhd3eb1b0\_0

pygments 2.11.2 pyhd3eb1b0\_0

pylint 1.9.2 py35\_0

pyopenssl 18.0.0 py35\_0

pyparsing 2.4.7 pyhd3eb1b0\_0

pyqt 5.9.2 py35h6538335\_2

pysocks 1.6.8 py35\_0

python 3.5.4 h1357f44\_23

python-dateutil 2.8.2 pyhd3eb1b0\_0

pytz 2021.3 pyhd3eb1b0\_0

pywin32 223 py35hfa6e2cd\_1

pyyaml 3.12 pypi\_0 pypi

pyzmq 17.1.2 py35hfa6e2cd\_0

qt 5.9.6 vc14h1e9a669\_2

qtawesome 1.0.1 py\_0

qtconsole 4.7.7 py\_0

qtpy 1.11.2 pyhd3eb1b0\_0

requests 2.25.1 pyhd3eb1b0\_0

rope 0.22.0 pyhd3eb1b0\_0

rope-py3k 0.9.4.post1 pypi\_0 pypi

setuptools 40.2.0 py35\_0

simplegeneric 0.8.1 py35\_2

singledispatch 3.4.0.3 pypi\_0 pypi

sip 4.19.8 py35h6538335\_0

six 1.16.0 pyhd3eb1b0\_1

snowballstemmer 2.1.0 pyhd3eb1b0\_0

sphinx 3.5.3 pyhd3eb1b0\_0

sphinxcontrib-applehelp 1.0.2 pyhd3eb1b0\_0

sphinxcontrib-devhelp 1.0.2 pyhd3eb1b0\_0

sphinxcontrib-htmlhelp 1.0.3 pyhd3eb1b0\_0

sphinxcontrib-jsmath 1.0.1 pyhd3eb1b0\_0

sphinxcontrib-packages 1.0.0 pypi\_0 pypi

sphinxcontrib-qthelp 1.0.3 pyhd3eb1b0\_0

sphinxcontrib-serializinghtml 1.1.5 pyhd3eb1b0\_0

sphinxcontrib-websupport 1.0.1 pypi\_0 pypi

spyder 3.3.1 py35\_1

spyder-kernels 0.2.6 py35\_0

sqlite 3.40.1 h2bbff1b\_0

tensorflow 1.0.0 pypi\_0 pypi

testpath 0.4.4 pyhd3eb1b0\_0

torch 0.4.1 pypi\_0 pypi

torchvision 0.1.6 pypi\_0 pypi

tornado 5.1.1 py35hfa6e2cd\_0

traitlets 4.3.2 py35h09b975b\_0

urllib3 1.23 py35\_0

vc 14.2 h21ff451\_1

vs2015\_runtime 14.27.29016 h5e58377\_2

wcwidth 0.2.5 pyhd3eb1b0\_0

webencodings 0.5.1 py35\_1

wheel 0.37.1 pyhd3eb1b0\_0

win\_inet\_pton 1.0.1 py35\_1

win\_unicode\_console 0.5 py35h56988b5\_0

wincertstore 0.2 py35hfebbdb8\_0

wrapt 1.10.11 py35hfa6e2cd\_2

xz 5.4.2 h8cc25b3\_0

zeromq 4.2.5 he025d50\_1

zlib 1.2.13 h8cc25b3\_0

zstd 1.5.5 hd43e919\_0

* After install all the above package run ***spyder***:

    conda activate py354

    spyder