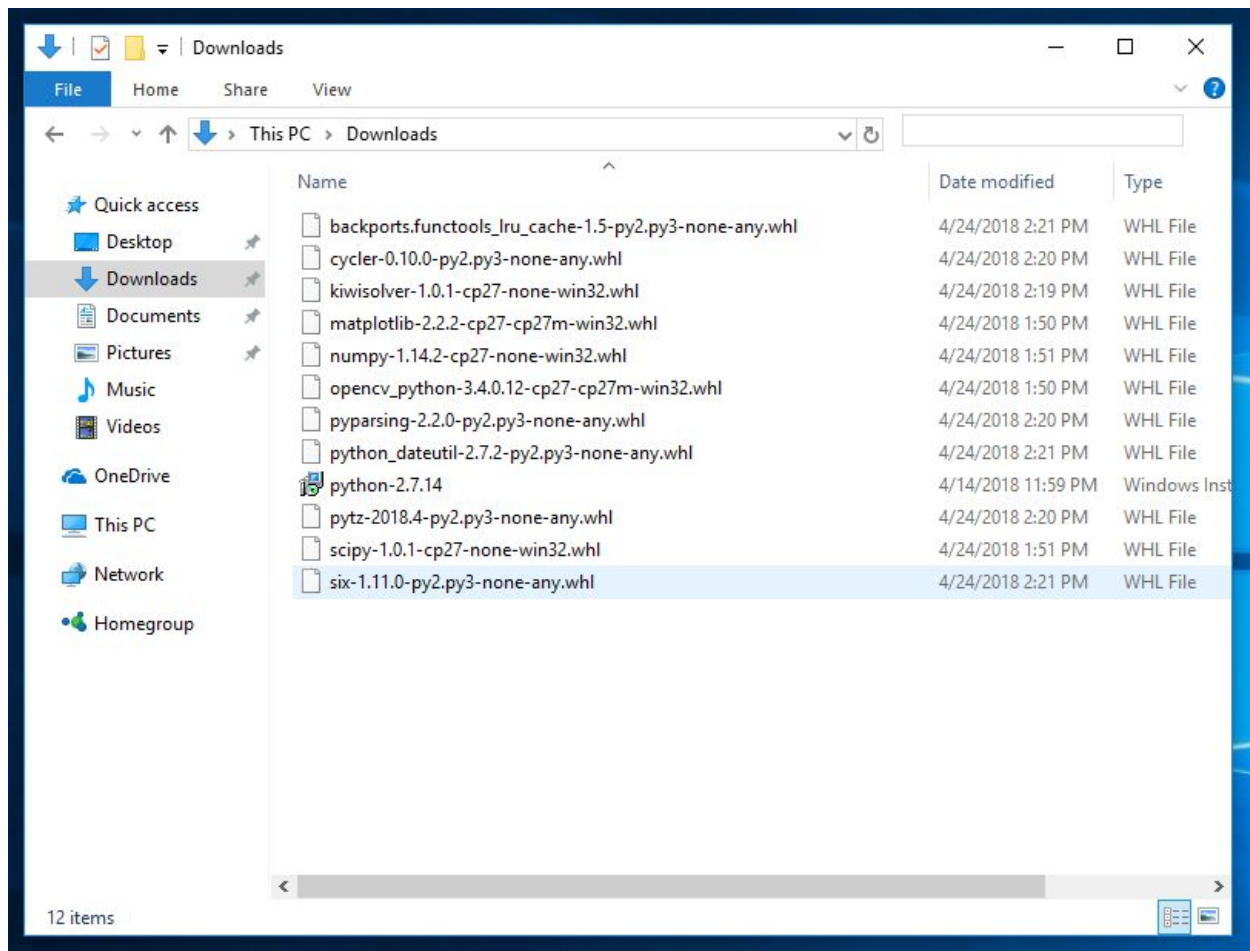# Installation guide for Python 2.7 OpenCV and Matplotlib

1. Required packages

- Python 2.7.14
- Python libraries from http://pypi.org
  - Numpy
  - Scipy
  - Kiwisolver
  - Pyparsing
  - Backports.functools
  - Six
  - Pytz
  - Cycler
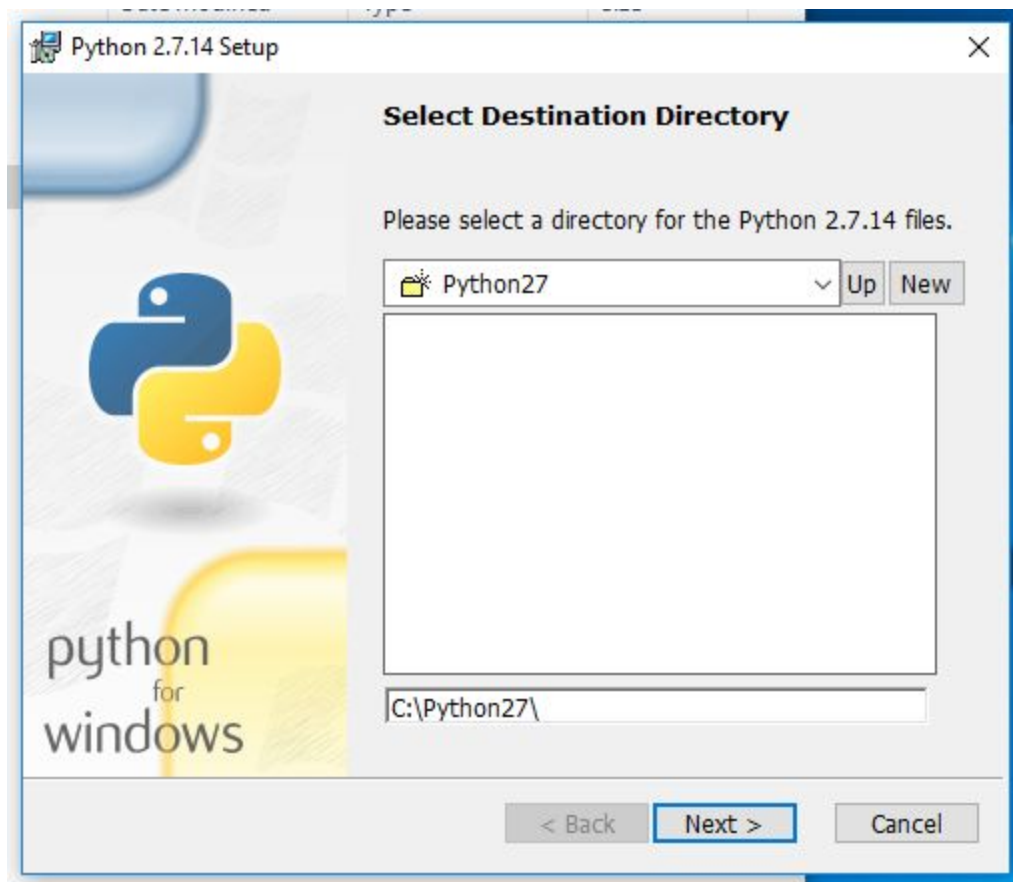 - Python_dateutil
  - Matplotlib
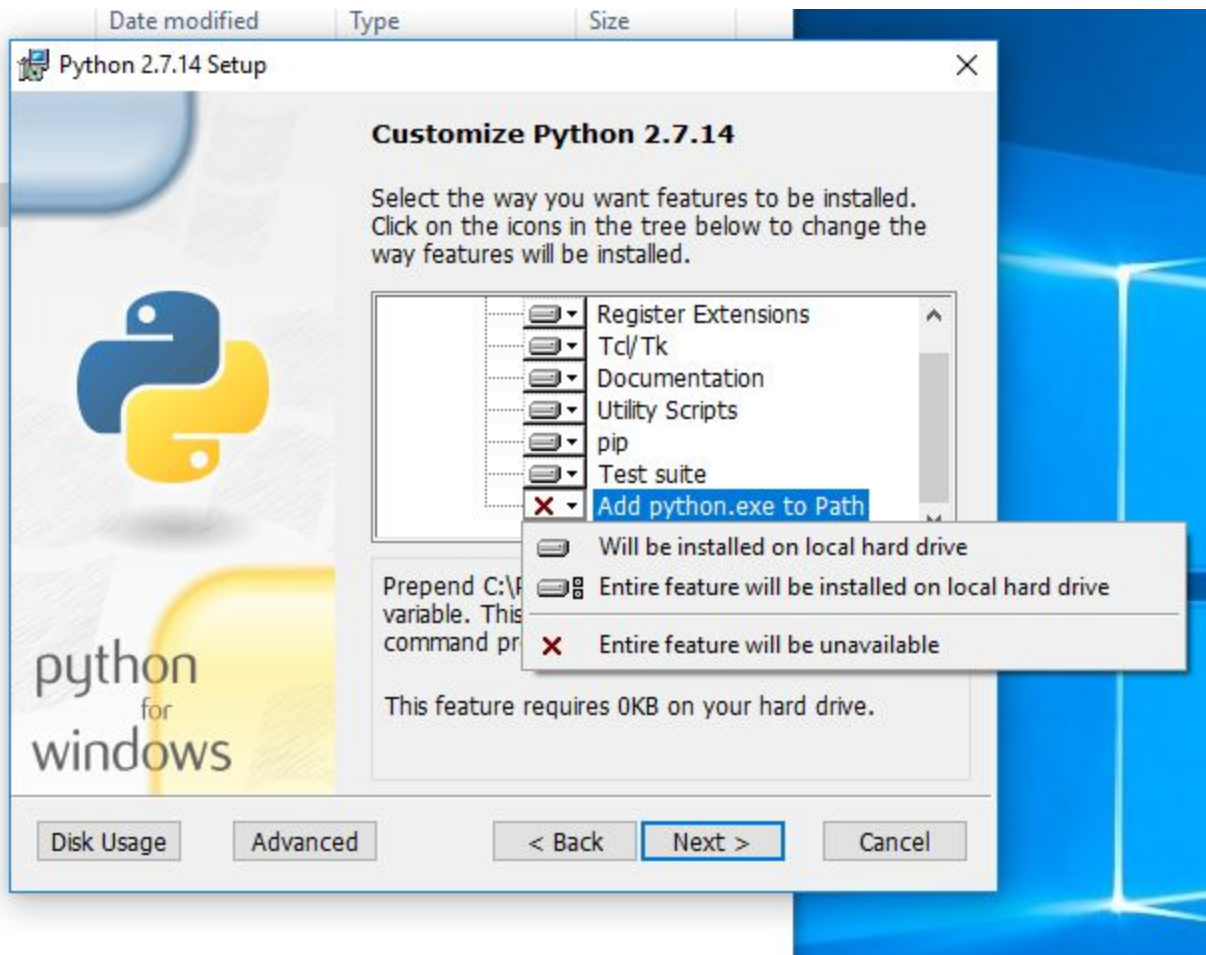 - Opencv-python

2. Python installation

2.1 Select "Install for all users".

2.2 Leave the default directory as "C:\Python27\".

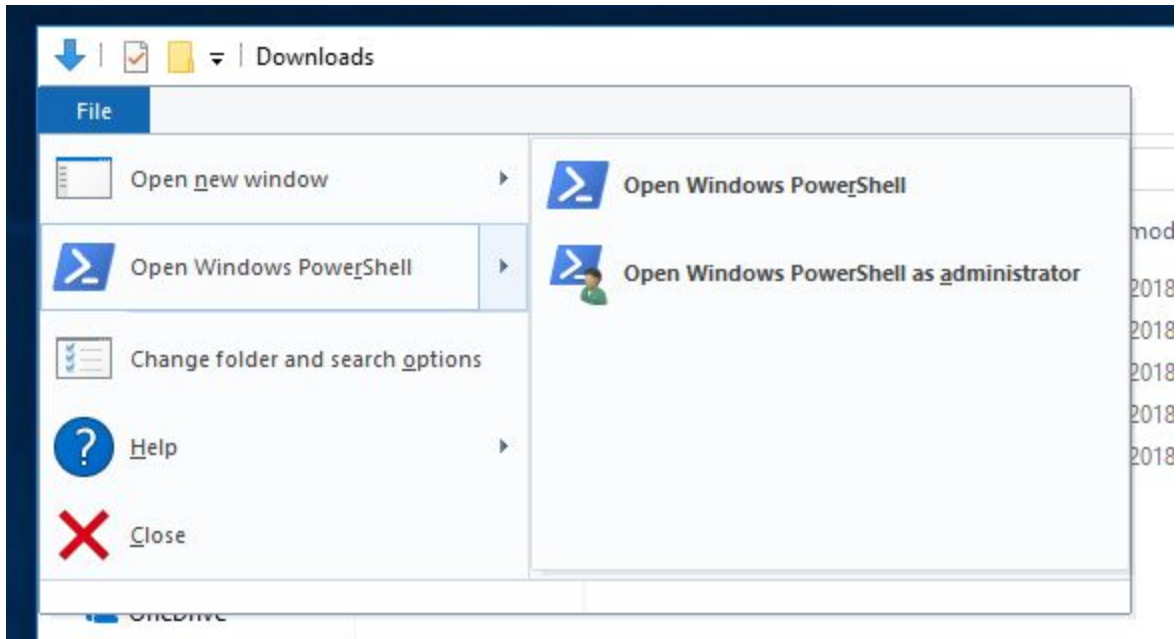2.3 For "Add python.exe to Path", choose "Entire feature will be installed on local hard drive".

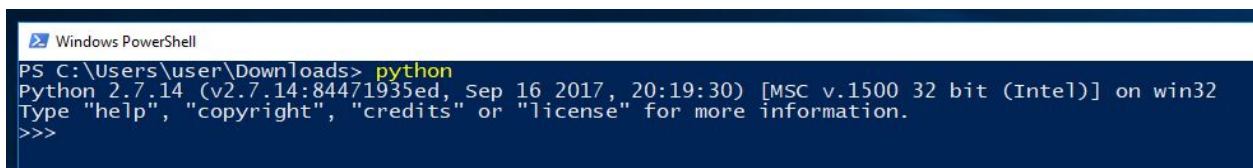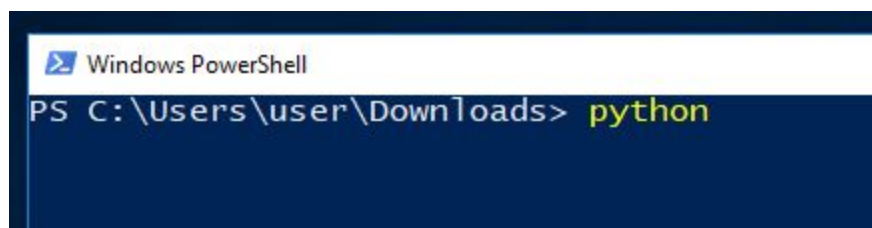2.4 Finish Python installation.

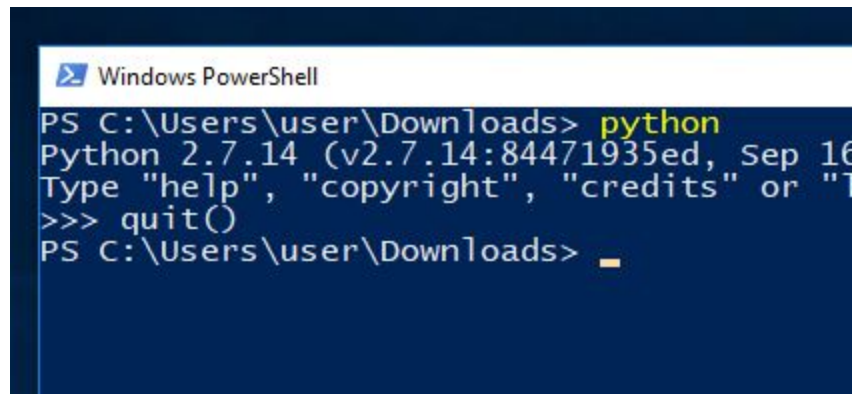# 3. Confirm Python installation

3.1 Bring up PowerShell.

3.2 Type "python" and hit Enter.

Python was installed correctly.

3.3 Exit with ctrl-c or type "quit()" and hit Enter.
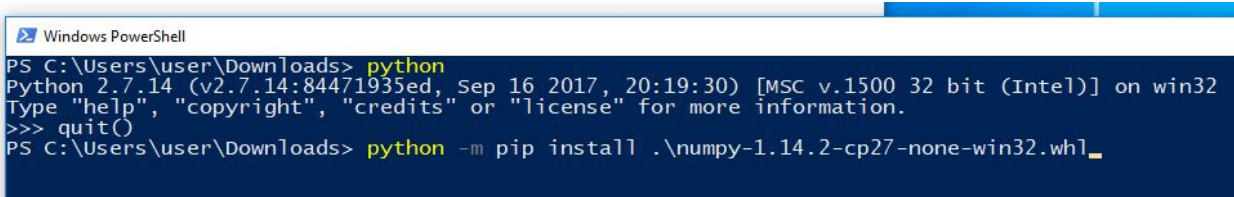
4. Python libraries installation

Order of installation

1. Numpy
2. Scipy
3. Kiwisolver
4. Pyparsing
5. Backports.functools
6. Six
7. Pytz
8. Cycler
9. Python_dateutil
10. Matplotlib
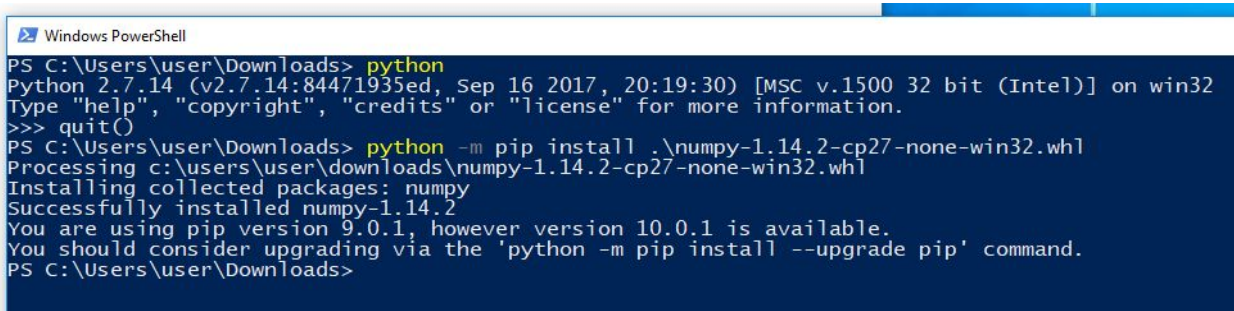11. Opencv-python

4.1 Bring up PowerShell, you should be in Downloads directory.
Type "python -m pip install <path-to-file>" to install a library

numpy-1.14.2-cp27-none-win32.whl was inside Downloads directory.

Numpy was installed successfully.

4.2 Repeat step 4.1 for all libraries.


```
Windows PowerShell                                                                                    —  □  ×
PS C:\Users\user\Downloads> python -m pip install .\numpy-1.14.2-cp27-none-win32.whl
Processing c:\users\user\downloads\numpy-1.14.2-cp27-none-win32.whl
Installing collected packages: numpy
Successfully installed numpy-1.14.2
PS C:\Users\user\Downloads> python -m pip install .\scipy-1.0.1-cp27-none-win32.whl
Processing c:\users\user\downloads\scipy-1.0.1-cp27-none-win32.whl
Requirement already satisfied: numpy>=1.8.2 in c:\python27\lib\site-packages (from scipy==1.0.1)
Installing collected packages: scipy
Successfully installed scipy-1.0.1
PS C:\Users\user\Downloads> python -m pip install .\kiwisolver-1.0.1-cp27-none-win32.whl
Processing c:\users\user\downloads\kiwisolver-1.0.1-cp27-none-win32.whl
Requirement already satisfied: setuptools in c:\python27\lib\site-packages (from kiwisolver==1.0.1)
Installing collected packages: kiwisolver
Successfully installed kiwisolver-1.0.1
PS C:\Users\user\Downloads> python -m pip install
You must give at least one requirement to install (see "pip help install")
PS C:\Users\user\Downloads> python -m pip install .\pyparsing-2.2.0-py2.py3-none-any.whl
Processing c:\users\user\downloads\pyparsing-2.2.0-py2.py3-none-any.whl
Installing collected packages: pyparsing
Successfully installed pyparsing-2.2.0
PS C:\Users\user\Downloads> python -m pip install .\backports.functools_lru_cache-1.5-py2.py3-none-any.whl
Processing c:\users\user\downloads\backports.functools_lru_cache-1.5-py2.py3-none-any.whl
Installing collected packages: backports.functools-lru-cache
Successfully installed backports.functools-lru-cache-1.5
PS C:\Users\user\Downloads> python -m pip install .\six-1.11.0-py2.py3-none-any.whl
Processing c:\users\user\downloads\six-1.11.0-py2.py3-none-any.whl
Installing collected packages: six
Successfully installed six-1.11.0
PS C:\Users\user\Downloads> python -m pip install .\pytz-2018.4-py2.py3-none-any.whl
Processing c:\users\user\downloads\pytz-2018.4-py2.py3-none-any.whl
Installing collected packages: pytz
Successfully installed pytz-2018.4
PS C:\Users\user\Downloads> python -m pip install .\cycler-0.10.0-py2.py3-none-any.whl
Processing c:\users\user\downloads\cycler-0.10.0-py2.py3-none-any.whl
Requirement already satisfied: six in c:\python27\lib\site-packages (from cycler==0.10.0)
Installing collected packages: cycler
Successfully installed cycler-0.10.0
PS C:\Users\user\Downloads> python -m pip install .\python_dateutil-2.7.2-py2.py3-none-any.whl
Processing c:\users\user\downloads\python_dateutil-2.7.2-py2.py3-none-any.whl
Requirement already satisfied: six>=1.5 in c:\python27\lib\site-packages (from python-dateutil==2.7.2)
Installing collected packages: python-dateutil
Successfully installed python-dateutil-2.7.2
```
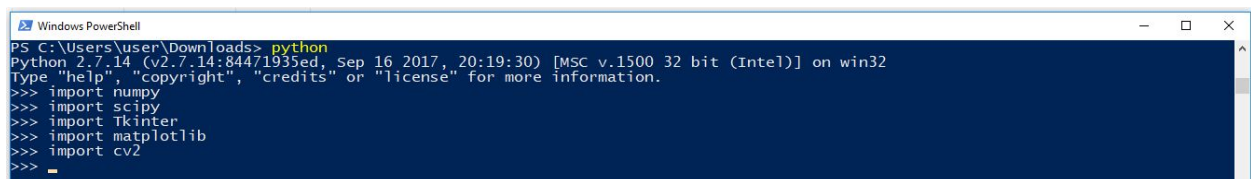


```
Windows PowerShell                                                                                    —  □  ×
PS C:\Users\user\Downloads> python -m pip install .\matplotlib-2.2.2-cp27-cp27m-win32.whl
Processing c:\users\user\downloads\matplotlib-2.2.2-cp27-cp27m-win32.whl
Requirement already satisfied: kiwisolver>=1.0.1 in c:\python27\lib\site-packages (from matplotlib==2.2.2)
Requirement already satisfied: numpy>=1.7.1 in c:\python27\lib\site-packages (from matplotlib==2.2.2)
Requirement already satisfied: pyparsing!=2.0.4,!=2.1.2,!=2.1.6,>=2.0.1 in c:\python27\lib\site-packages (from matplotlib==2.2.2)
Requirement already satisfied: backports.functools-lru-cache in c:\python27\lib\site-packages (from matplotlib==2.2.2)
Requirement already satisfied: six>=1.10 in c:\python27\lib\site-packages (from matplotlib==2.2.2)
Requirement already satisfied: pytz in c:\python27\lib\site-packages (from matplotlib==2.2.2)
Requirement already satisfied: cycler>=0.10 in c:\python27\lib\site-packages (from matplotlib==2.2.2)
Requirement already satisfied: python-dateutil>=2.1 in c:\python27\lib\site-packages (from matplotlib==2.2.2)
Requirement already satisfied: setuptools in c:\python27\lib\site-packages (from kiwisolver>=1.0.1->matplotlib==2.2.2)
Installing collected packages: matplotlib
Successfully installed matplotlib-2.2.2
PS C:\Users\user\Downloads> python -m pip install .\opencv_python-3.4.0.12-cp27-cp27m-win32.whl
Processing c:\users\user\downloads\opencv_python-3.4.0.12-cp27-cp27m-win32.whl
Requirement already satisfied: numpy>=1.11.1 in c:\python27\lib\site-packages (from opencv-python==3.4.0.12)
Installing collected packages: opencv-python
Successfully installed opencv-python-3.4.0.12
PS C:\Users\user\Downloads>
```

5. Confirm Python libraries installation

5.1 Bring up PowerShell and run Python then type the following commands
- import numpy
- import scipy
- import Tkinter
- import matplotlib
- import cv2

All libraries were installed successfully