Python For Beginners Class 1

IT Club Sept,2017

Get the Text Book

In Google, search “Python for kids, pdf”, and in the search result download the pdf version of the book.

What is Anaconda?

https://www.anaconda.com/what-is-anaconda/

How to Install Anaconda?

Download Anaconda 4.2.0 for Python 3.5:

For Windows 64bit
https://repo.continuum.io/archive/Anaconda3-4.2.0-Windows-x86_64.exe

For MacOSx 64bit
https://repo.continuum.io/archive/Anaconda3-4.2.0-MacOSX-x86_64.pkg

For Linux 64bit
https://repo.continuum.io/archive/Anaconda3-4.2.0-Linux-x86_64.sh

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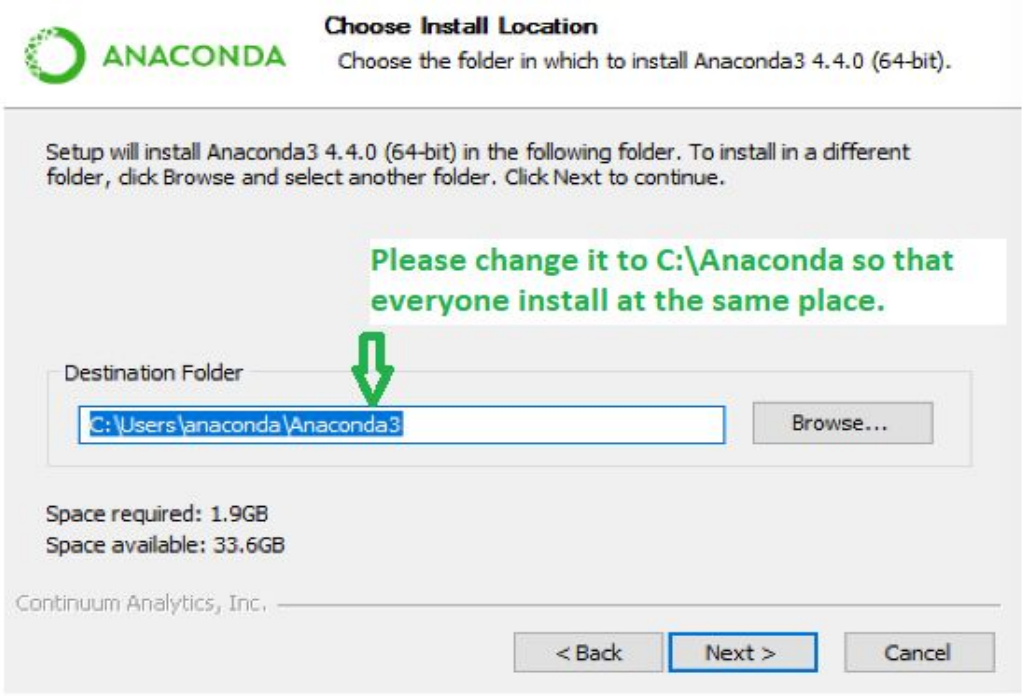
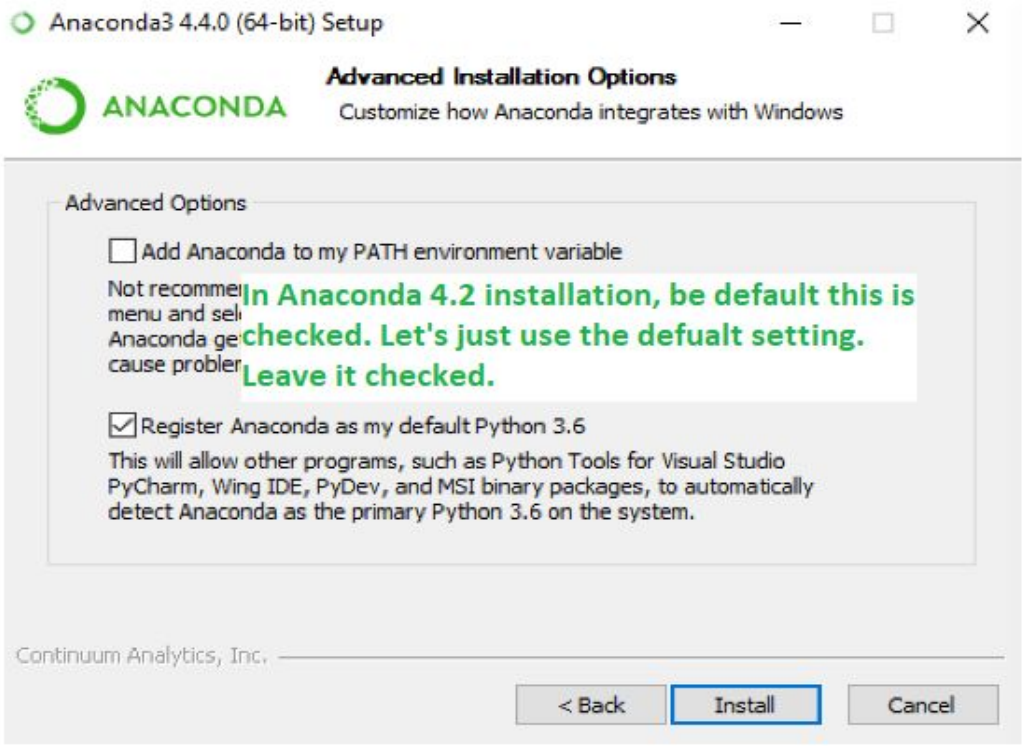
For Windows 32bit
https://repo.continuum.io/archive/Anaconda3-4.2.0-Windows-x86.exe

The Anaconda Archive
https://repo.continuum.io/archive/

Install Anaconda

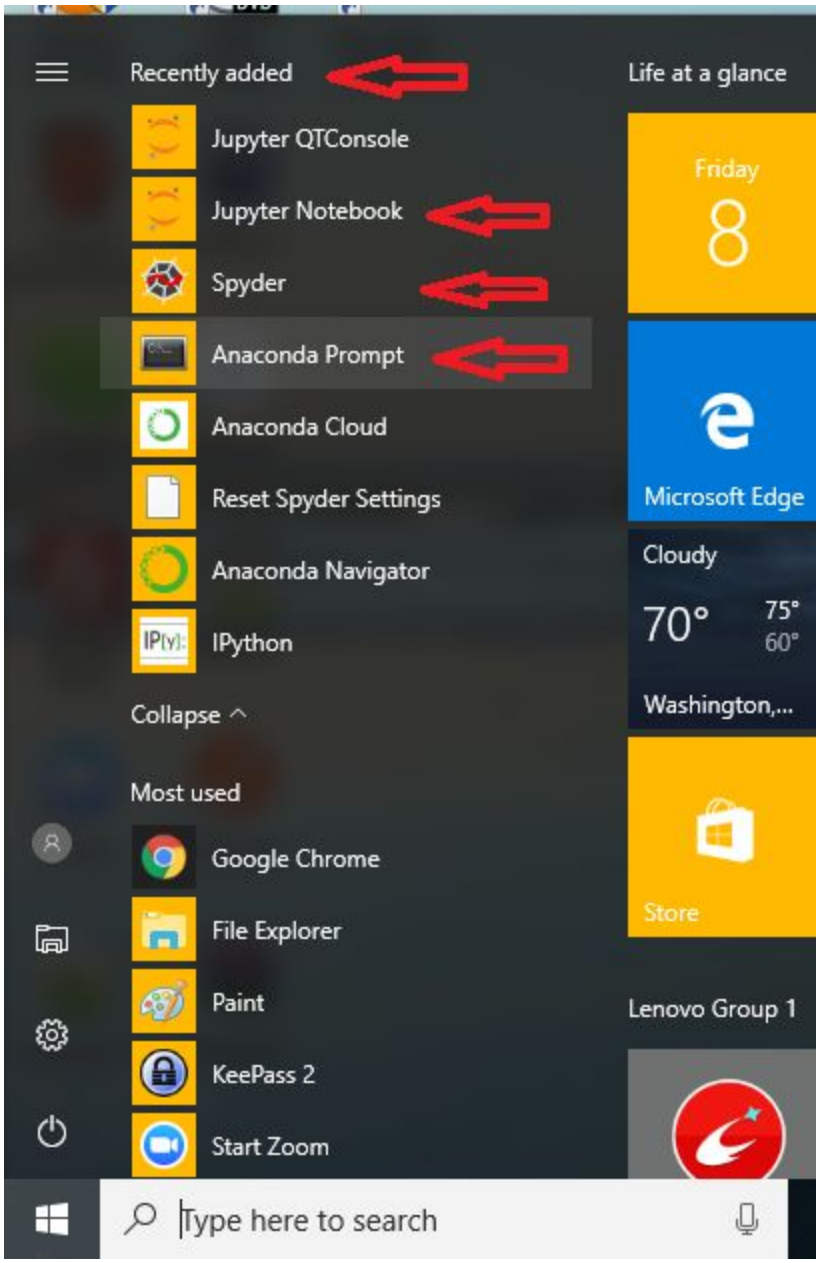


. Choose whether to add Anaconda to your PATH environment variable. We recommend not adc
other software. Instead, use Anaconda software by opening Anaconda Navigator or the Anaco



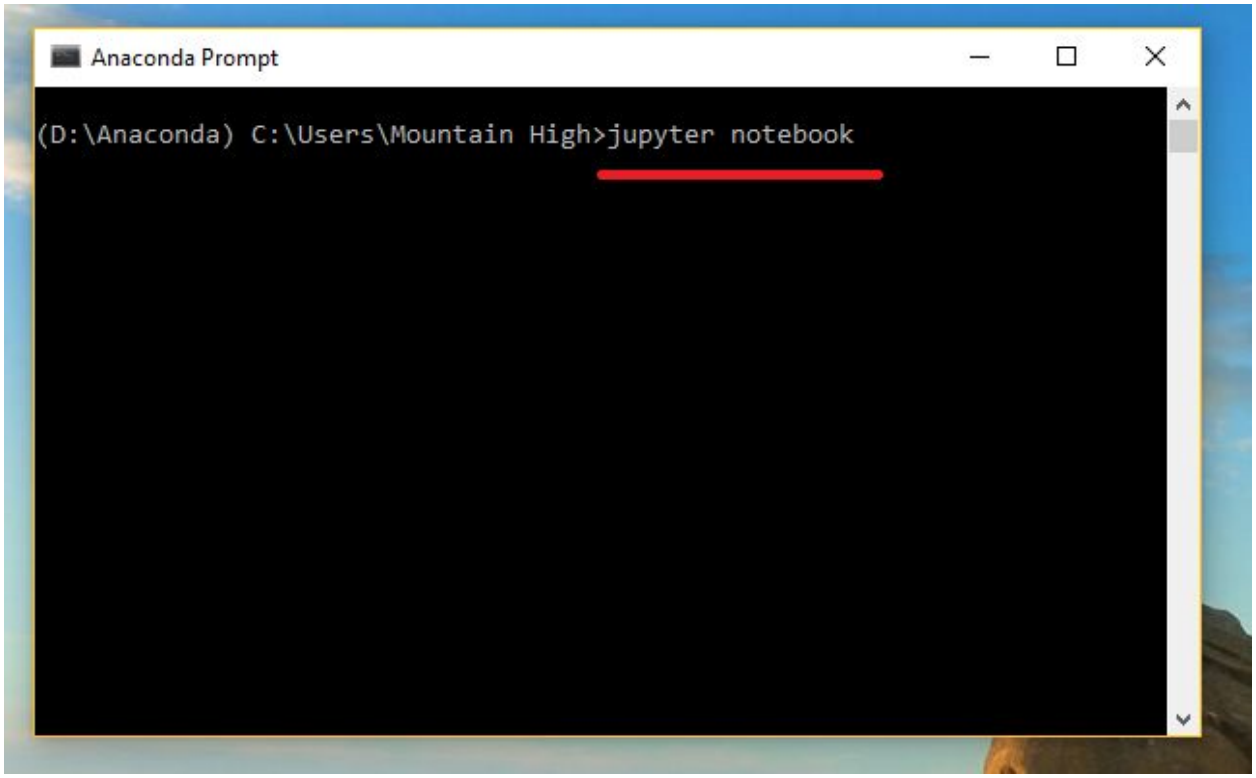
Start Anaconda Prompt and Jupyter Notebook

Take Windows 10 as an example:



Either you can start the Jupyter Notebook directly from windows start menu directly, Or

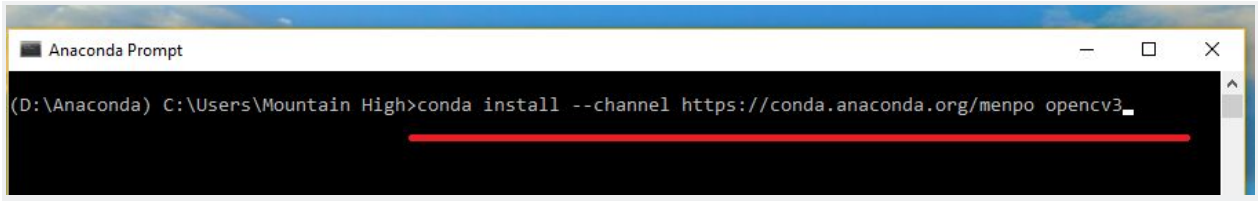
Start an “Anaconda Prompt” first, then in the Anaconda console, input command “jupyter notebook”



Optional: Install opencv 3

This is optional. If you want to run the small Python program for face detection we demoed in the class, then you need to install a python computer vision library called “opencv”.

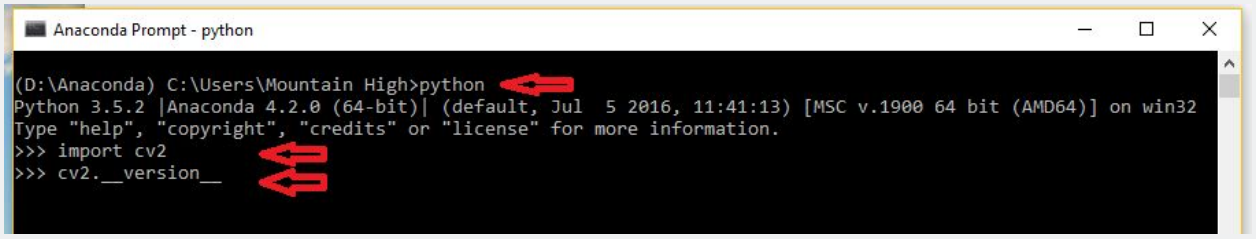
Start an “Anaconda Prompt” first, then in the Anaconda console, input command:
`conda install --channel https://conda.anaconda.org/menpo opencv3`

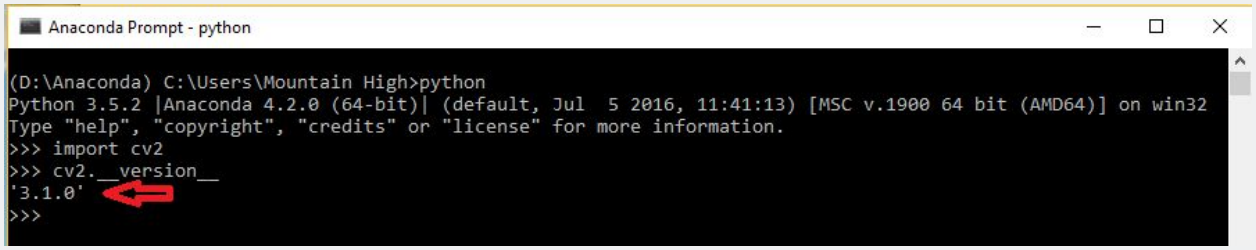


Note: you need enter y when you are asked to confirm the installation.

To verify you have installed opencv correctly, in a Anaconda Prompt window enter the following three command

- python
- `import cv2`
- `cv2.__version__`





You should see the '3.1.0' is displayed.

After you have verified the opencv has been installed successfully, press "Ctrl" and "c" buttons at the same time on your keyboard to quit Python command prompt (for Windows users).

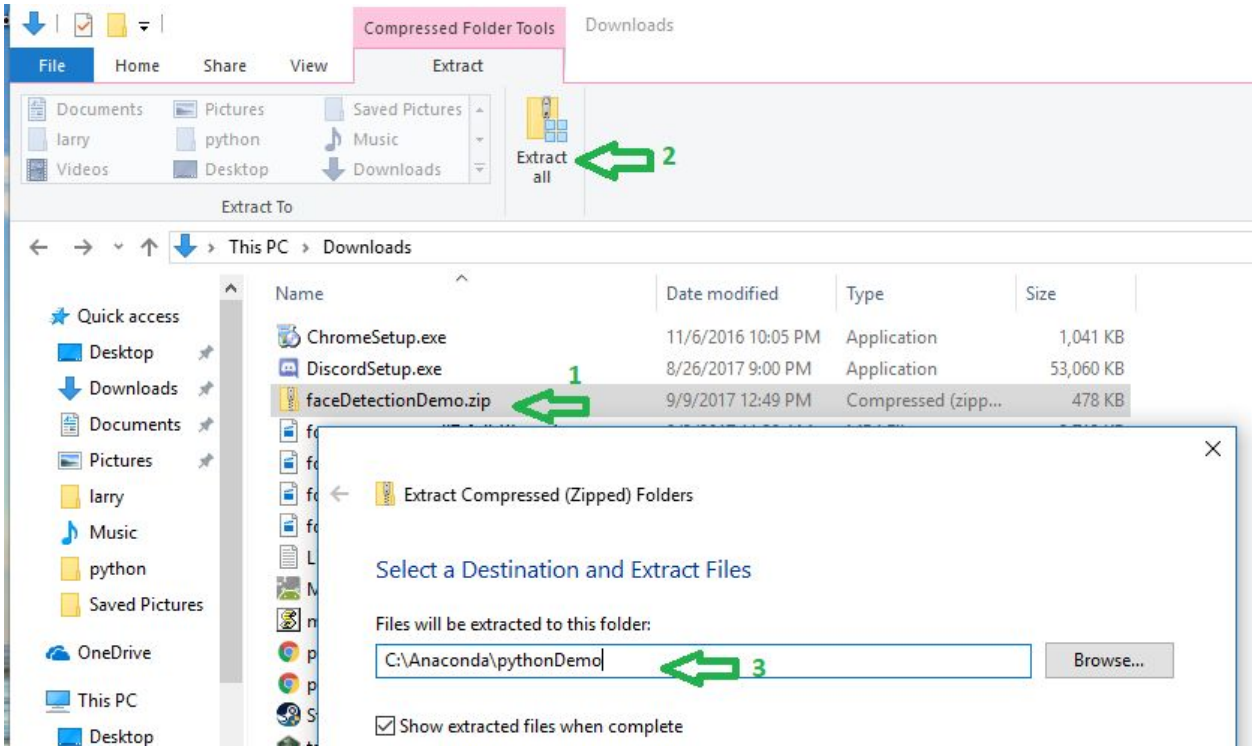
Download and Load the Face Detection Demo

Follow the instruction on this page
https://gtscnc.org/download/python-face-detection-demo

How to download and load the demo to your Jupyter Notebook?

1. Download the faceDetectionDemo.zip to your computer.

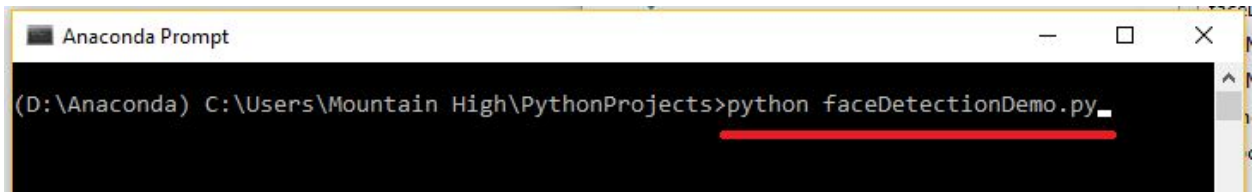
2. Unzip it to a directory that you feel comfortable to work with. It is recommended to created a new directory to hold the extracted files, for example a directory named "pythonDemo" under "C:\Anaconda\".



3. In your Jupyter Notebook file explorer, find the directory that contains the file you unzipped.
4. click the "**findMyFaces.ipynb**". The program should be able to load into your Jupyter Notebook.

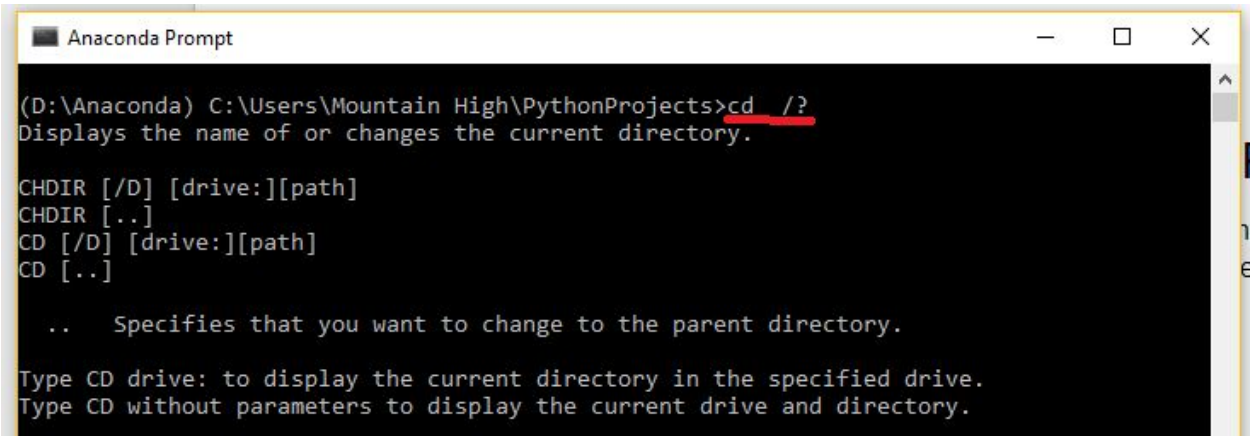
Run the Demo Without Using Jupyter Notebook

- Open a Anaconda Prompt
- Type command python faceDetectionDemo.py
- To abort, hit "*Ctrl C*" in the Anaconda Prompt



Extra Study: Commands for Anaconda Prompt

In the Anaconda Prompt, please study how to use following basic commands. You can type command name /? To find out the help document of the command. For example, ***cd /?*** will display how to use command ‘cd’.



You need to know how to use the following commands:

- dir
- cd
- ren
- del
- mkdir

Trivial question: in command prompt, how to retrieve the path of current working directory (display where the current directory is)?