

Compgi21 Lab 1 Python Installation

UCL

October 2017

Anaconda

1 What is Anaconda?

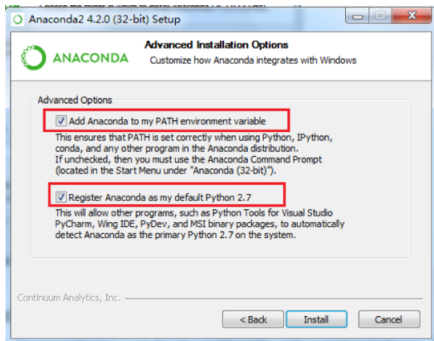
Anaconda is a Python distribution to help you install Python and its 3rd party packages for Data Science work. It includes:

- ▶ The Python core language
- ▶ 1000+ Data Science packages
- ▶ Jupyter Notebook
- ▶ Conda, Anaconda's package manager

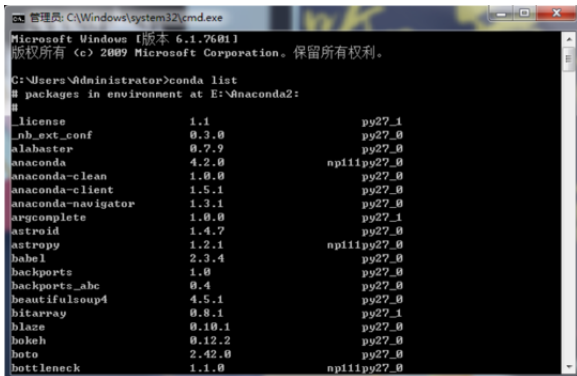
2 Why Anaconda?

- ▶ Ease of Python installation
- ▶ Ease of packages and version management
- ▶ Full version comes with numpy, scipy, scikit-learn and matplotlib etc.

- 1 Download Anaconda from <https://www.anaconda.com/download/> (find the installer matching your system and choose Python3.6)
- 2 Install Anaconda
Check the two boxes in Advanced Options



- ③ Check if you have installed Anaconda correctly
Type *conda list* in your terminal(Mac/Linux) or cmd(Windows) and you should see output like this:



```
管理员: C:\Windows\system32\cmd.exe
Microsoft Windows [版本 6.1.7601]
版权所有 (c) 2009 Microsoft Corporation. 保留所有权利。

C:\Users\Administrator>conda list
# packages in environment at E:\Anaconda2:
#
_license                  1.1                      py27_1
_nb_ext_conf              0.3.0                   py27_0
alabaster                 0.7.9                   py27_0
anaconda                  4.2.0                   np11py27_0
anaconda-clean            1.0.0                   py27_0
anaconda-client           1.5.1                   py27_0
anaconda-navigator        1.3.1                   py27_0
argcomplete               1.0.0                   py27_1
astroid                   1.4.7                   py27_0
astropy                   1.2.1                   np11py27_0
babel                     2.3.4                   py27_0
backports                 1.0                      py27_0
backports_abc             0.4                      py27_0
beautifulsoup4            4.5.1                   py27_0
bitarray                  0.8.1                   py27_1
blaze                     0.10.1                  py27_0
bokeh                     0.12.2                  py27_0
boto                       2.42.0                  py27_0
bottleneck                1.1.0                   np11py27_0
```

The output tells you linked packages in a conda environment

Notebook document

Notebook documents are documents produced by the Jupyter Notebook App, which contain both computer code (e.g. python) and rich text elements (paragraph, equations, figures, links, etc...). Notebook documents are both human-readable documents containing the analysis description and the results (figures, tables, etc..) as well as executable documents which can be run to perform data analysis.

Jupyter Notebook App

The Jupyter Notebook App is a server-client application that allows editing and running notebook documents via a web browser. The Jupyter Notebook App can be executed on a local desktop requiring no internet access (as described in this document) or can be installed on a remote server and accessed through the internet.

(http://jupyter-notebook-beginner-guide.readthedocs.io/en/latest/what_is_jupyter.html)

Open your Assignment 1 in Jupyter

- 1 Download Assignment 1 from Moodle
- 2 type `cd /path/to/your/assignment_1/folder` in your terminal or cmd
- 3 type `jupyter notebook`
(you should see:



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