

Using Anaconda to install third-party package

mac

```
Maximilians-MBP:python-blockchain mschwarzmueLLer$ pip install pycrypto
Requirement already satisfied: pycrypto in /anaconda3/lib/python3.6/site-packages
You are using pip version 9.0.1, however version 10.0.0 is available.
You should consider upgrading via the 'pip install --upgrade pip' command.
Maximilians-MBP:python-blockchain mschwarzmueLLer$
```

windows
often painful

```
Maximilians-MBP:python-blockchain mschwarzmueLLer$ python -m pip install pycrypto  
Requirement already satisfied: pycrypto in /anaconda3/lib/python3.6/site-packages  
You are using pip version 9.0.1, however version 10.0.0 is available.  
You should consider upgrading via the 'pip install --upgrade pip' command.  
Maximilians-MBP:python-blockchain mschwarzmueLLer$ █
```

```
Maximilians-MBP:python-blockchain mschwarzmueller$ python -m pip install pycrypto
Requirement already satisfied: pycrypto in /anaconda3/lib/python3.6/site-packages
You are using pip version 9.0.1, however version 10.0.0 is available.
You should consider upgrading via the 'pip install --upgrade pip' command.
Maximilians-MBP:python-blockchain mschwarzmueller$ source activate pycoin
(pycoin) Maximilians-MBP:python-blockchain mschwarzmueller$
```

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Version 5.1 | Release Date: February 15, 2018

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base (root) 

ObjectDetection

PyTorch


WebScraping

py2

py3


py36

rl

Create new environment 

Name:

Location: /Users/pz/anaconda3/envs/pycoin

Packages: ☒ Python 

☐ R 

Cancel

Create

Name  Description


Version

 5.1.0

0.1.0

0.7.1

able sphinx theme


 0.7.10

 custom

library


 1.6.9

☒ anaconda-project  Reproducible, executable project directories

 0.8.2

☒ appnope  Disable app nap on os x 10.9

0.1.0

☒ appscript  Control applescriptable applications from python

 1.0.1

☒ asn1crypto  Asn.1 parser and serializer

0.24.0

☒ astor 

0.8.0

286 packages available

create virtual env

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[Cryptographic modules for python](#)
[2.6.1](#)

[pycryptodome](#)

[3.7.3](#)

[pycryptodomex](#)

[3.8.1](#)

[pycryptosat](#)

[5.6.6](#)

4 packages available matching "pycrypto" 1 package selected

[Apply](#)
[Clear](#)

search official packages



Install Packages

X

1 package will be installed

	Name	Unlink	Link	Channel
1	pycrypto	-	2.6.1	pkgs/main

<div> <div>Installed</div> <div>Channels</div> <div>Update index...</div> <div>Search Packages</div> </div>			
Name	T	Description	Version
<div> <div>✓</div> <div>pip</div> </div>	<div> <div></div> </div>	Pypa recommended tool for installing python packages	19.2.2
<div> <div>✓</div> <div>pycrypto</div> </div>	<div> <div></div> </div>	Cryptographic modules for python	2.6.1
<div> <div>✓</div> <div>python</div> </div>	<div> <div></div> </div>	General purpose programming language	3.6.9
<div> <div>✓</div> <div>readline</div> </div>	<div> <div></div> </div>	Line-editing for programs with a command-line interface	7.0
<div> <div> <div><</div> <div>✓</div> <div>setuptools</div> </div> </div>	<div> <div></div> </div>	Download, build, install, upgrade, and uninstall python packages	41.0.1

pycoin

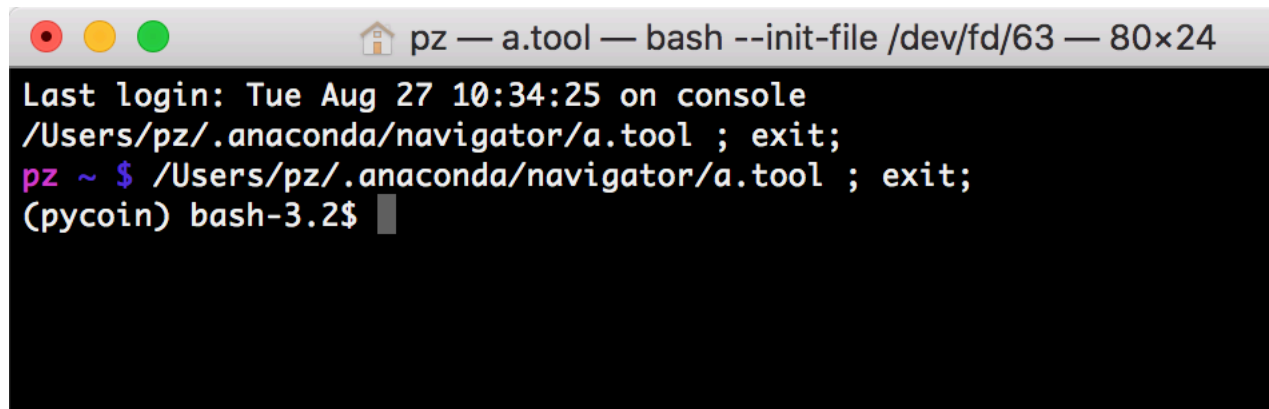


Open Terminal

rl

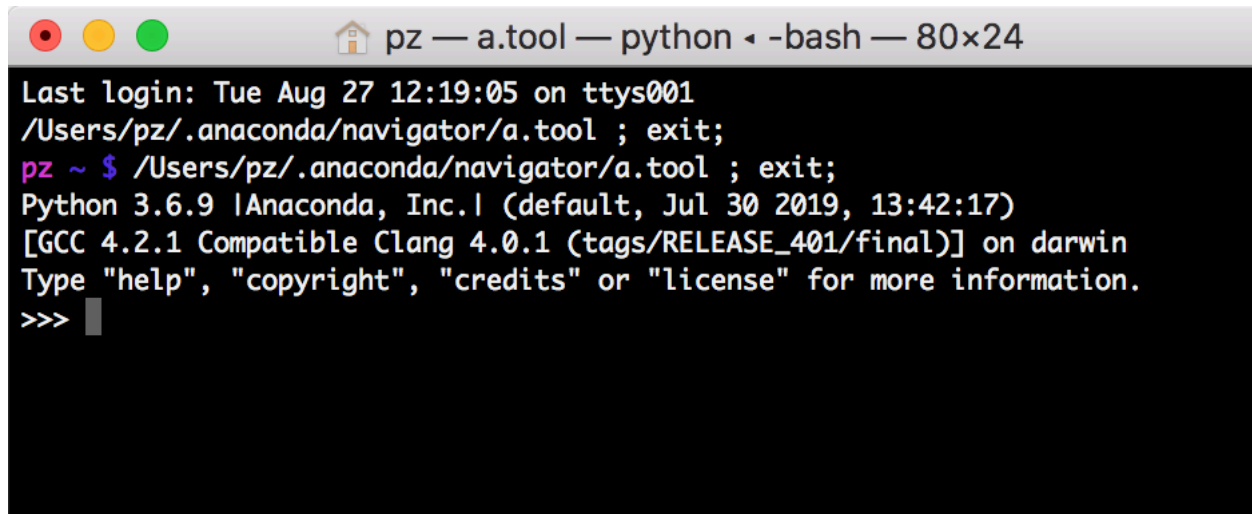
Open with Python

open terminal

A screenshot of a macOS terminal window. The title bar at the top shows three colored window control buttons (red, yellow, green) on the left, a home icon, and the text 'pz — a.tool — bash --init-file /dev/fd/63 — 80x24'. The terminal content is as follows:

```
Last login: Tue Aug 27 10:34:25 on console
/Users/pz/.anaconda/navigator/a.tool ; exit;
pz ~ $ /Users/pz/.anaconda/navigator/a.tool ; exit;
(pycoin) bash-3.2$
```

open with Python

A terminal window with a dark background and light text. The title bar at the top shows three colored window control buttons (red, yellow, green) on the left, a home icon, and the text 'pz — a.tool — python ◀ -bash — 80x24'. The terminal content shows a login message, a shell command to exit a previous session, the execution of a script that opens a Python 3.6.9 shell, and the Python startup banner. The prompt is '>>>' with a cursor.

```
pz — a.tool — python ◀ -bash — 80x24
Last login: Tue Aug 27 12:19:05 on ttys001
/Users/pz/.anaconda/navigator/a.tool ; exit;
pz ~ $ /Users/pz/.anaconda/navigator/a.tool ; exit;
Python 3.6.9 |Anaconda, Inc.| (default, Jul 30 2019, 13:42:17)
[GCC 4.2.1 Compatible Clang 4.0.1 (tags/RELEASE_401/final)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> █
```

Using Virtual Environments

Virtual Environments allow you to only install certain Python packages for some projects - instead of globally on your machine. This is helpful when working with multiple projects where you might want to use a different set of packages (=> dependencies) for every project.

You can easily create a new virtual environment in the Anaconda Navigator (as shown in the last lecture). Read more here: <https://docs.anaconda.com/anaconda/navigator/getting-started#navigator-managing-environments>

After creating an environment, you need to activate it. There are two ways of doing that:

1. Execute `source activate NAME_OF_ENVIRONMENT` (e.g. `source activate pycoin`) on macOS and Linux or just `activate NAME_OF_ENVIRONMENT` (e.g. `activate pycoin`) on Windows. This might fail for Windows though. To fix it, please see this thread: <https://github.com/ContinuumIO/anaconda-issues/issues/2533>
2. Alternatively, you use the Anaconda Navigator to launch a terminal/ command prompt that already uses your new virtual environment: Click on the green "play" button next to your environment name and choose the option to launch a new terminal/ command prompt there. This will be a normal terminal/ command prompt, so after navigating into your project folder (via the `cd` command), you can use it just as shown in the videos.

<https://docs.anaconda.com/anaconda/navigator/getting-started#navigator-managing-environments>

<https://github.com/ContinuumIO/anaconda-issues/issues/2533>

Use Pycryptodome instead of PyCrypto

Instead of the "PyCrypto" package we installed, you can also use the "Pycryptodome" package (<http://pycryptodome.readthedocs.io/en/latest/index.html>) now. Especially on Windows, "PyCrypto" can fail to run, "Pycryptodome" is a nice drop-in replacement (i.e. no code changes required) that should solve any issues you might have.