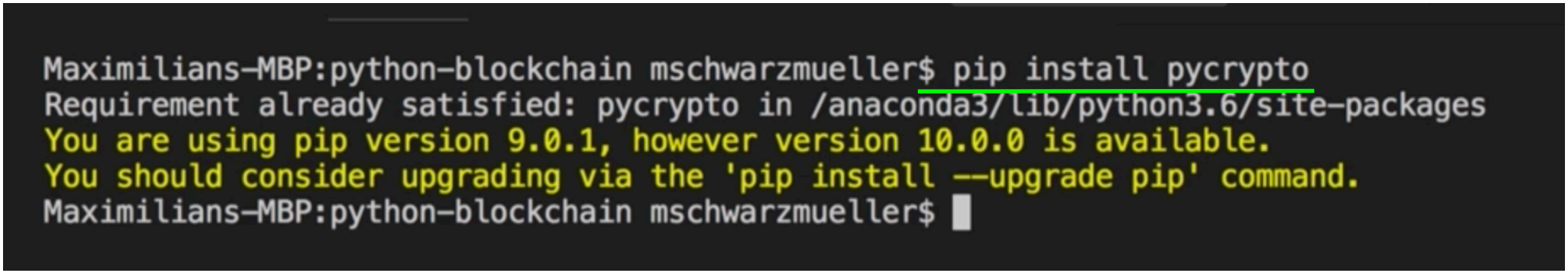
Using Anaconda to install third-party package

mac



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$
```

ANACONDA.

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Version 5.1 | Release Date: February 15, 2018

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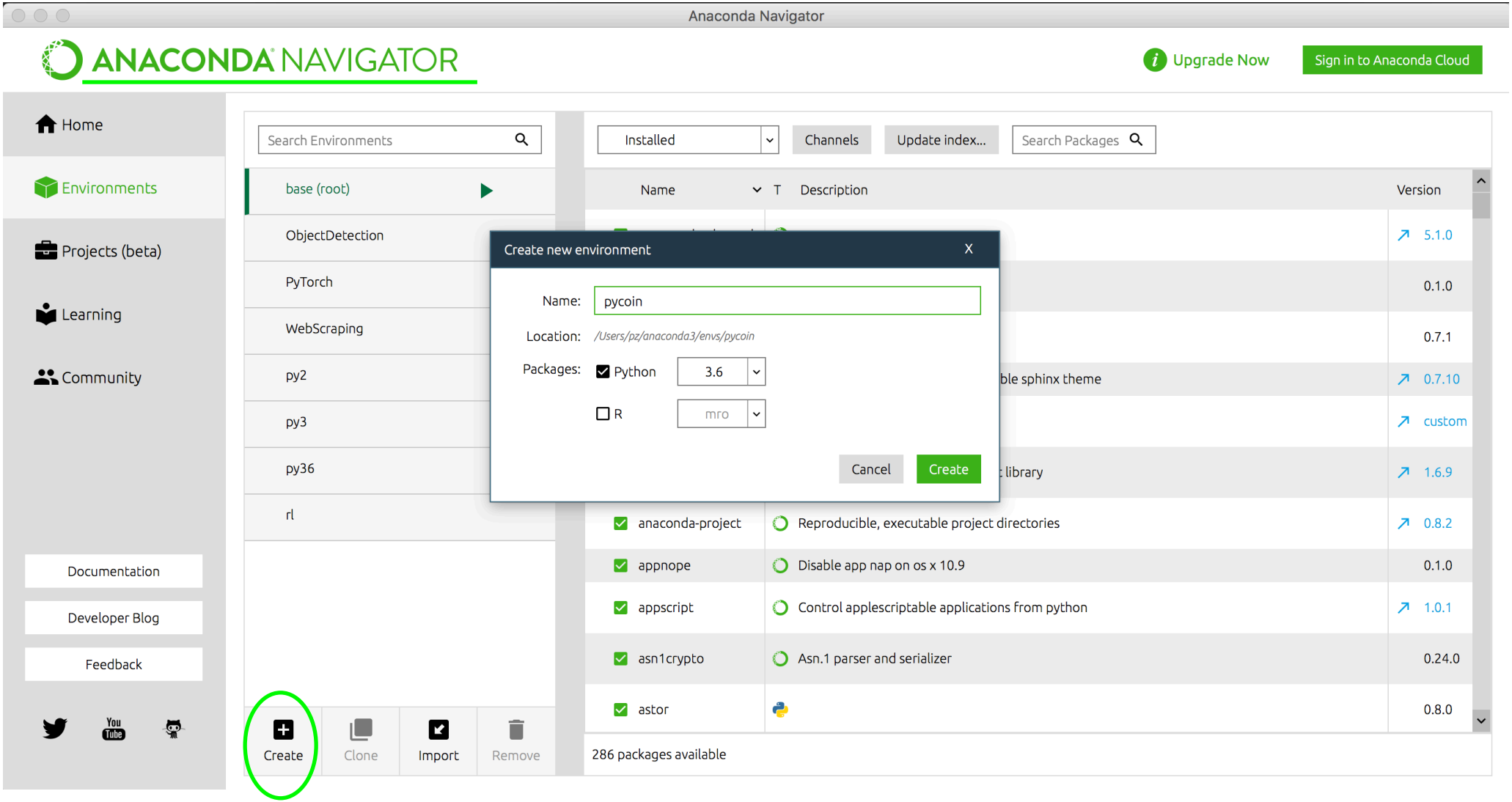
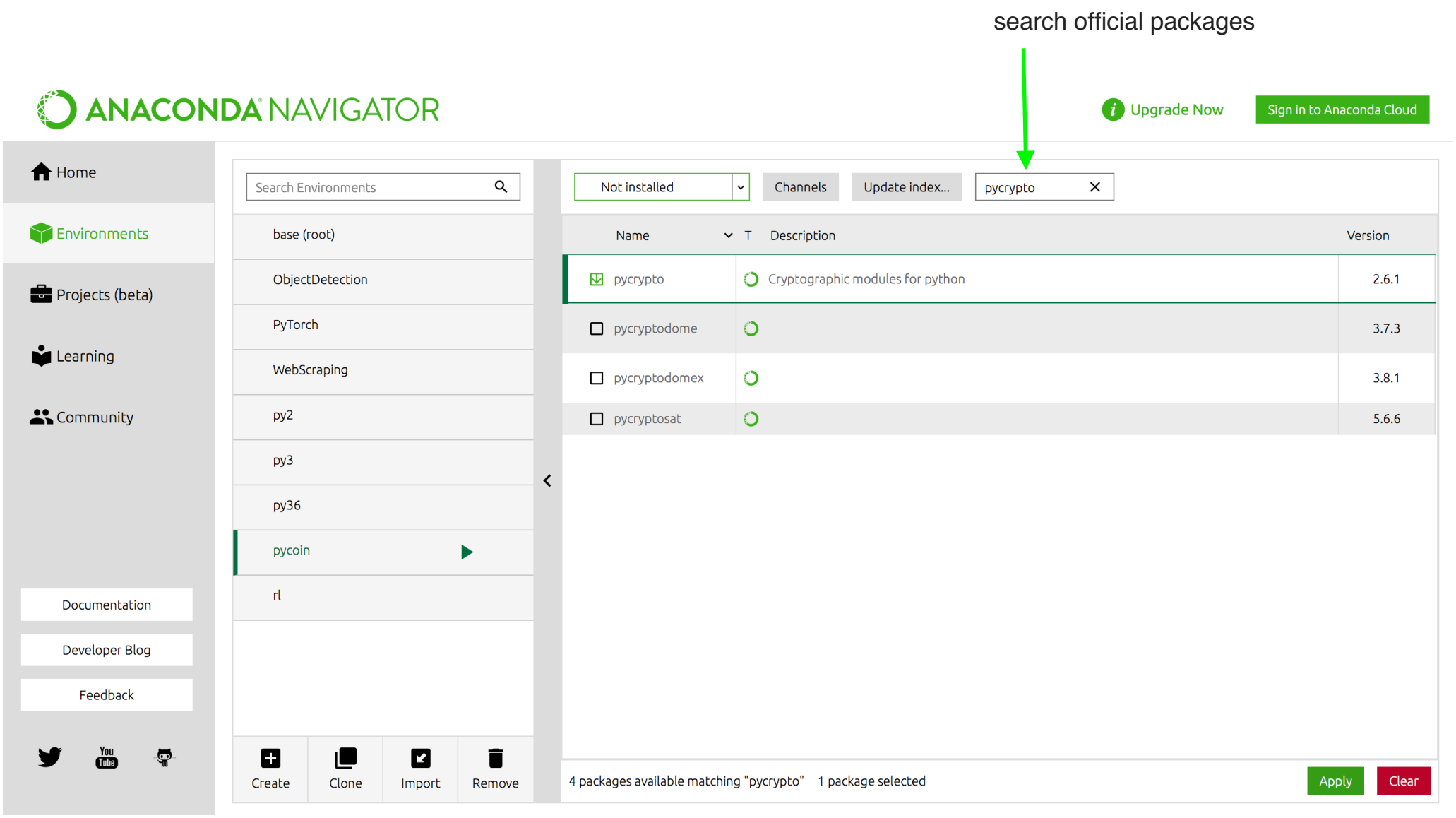
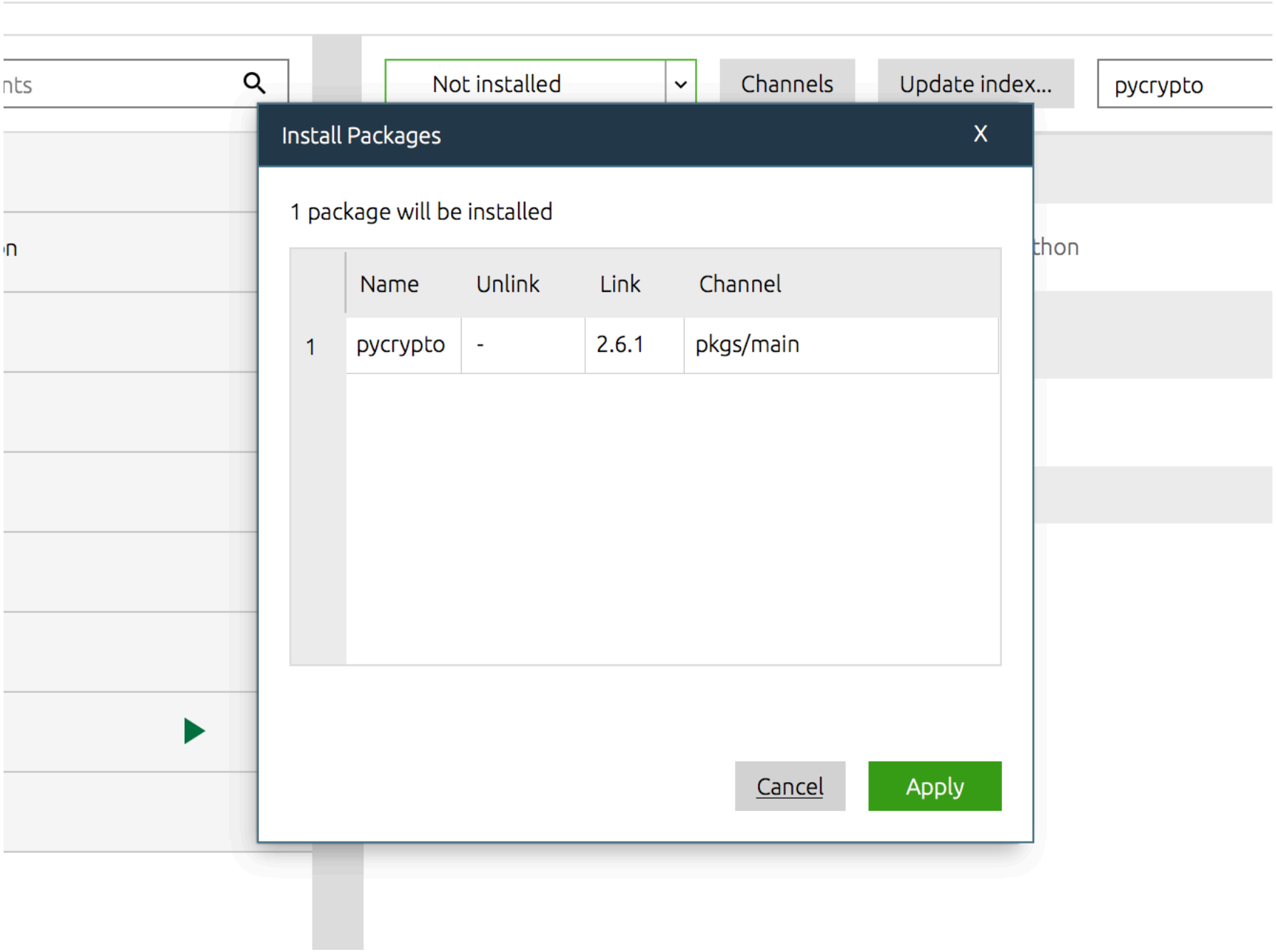
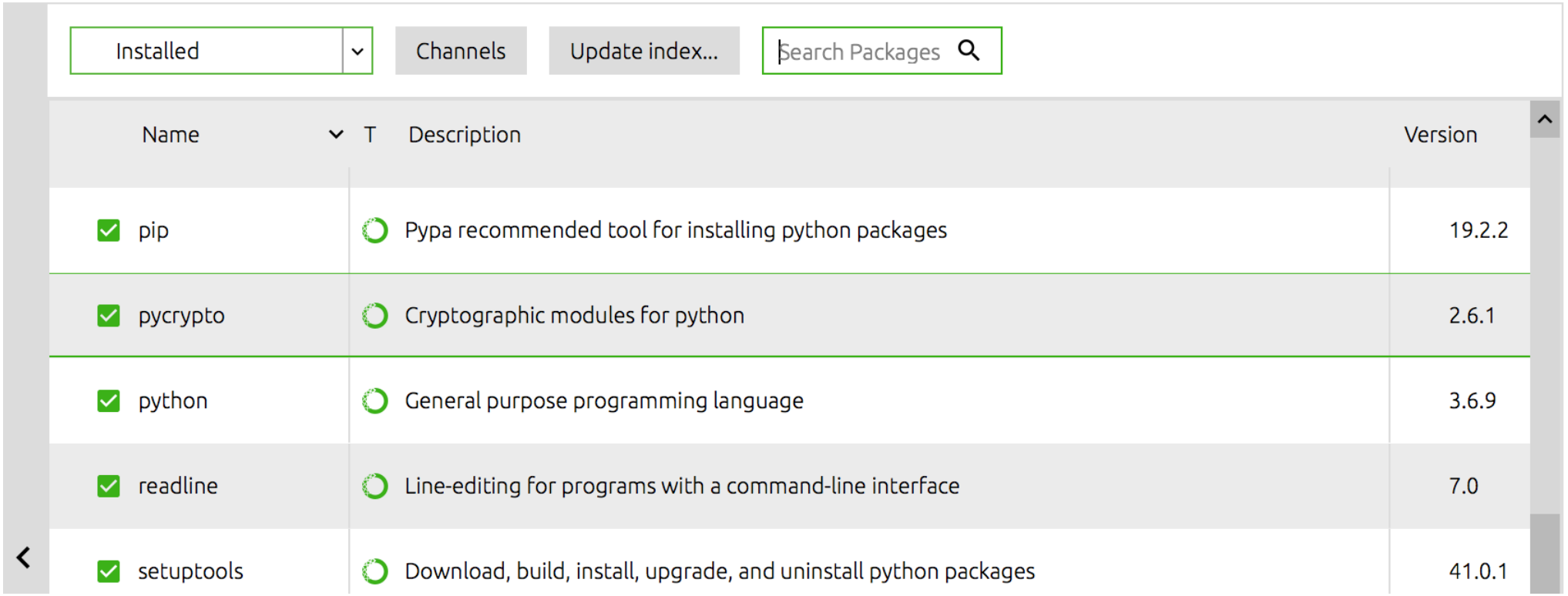
Anaconda 5.1 For macOS Installer

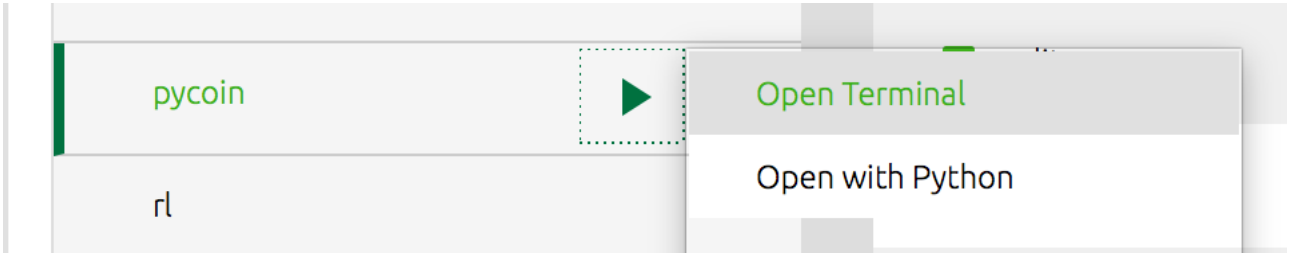


create virtual env


search official packages
ANACONDA NAVIGATOR
Upgrade Now
Sign in to Anaconda Cloud
Home
Environments
Projects (beta)
Learning
Community
Documentation
Developer Blog
Feedback
Search Environments
base (root)
ObjectDetection
PyTorch
WebScraping
py2
py3
py36
pycoin
rl
Create
Clone
Import
Remove
Not installed
Channels
Update index...
pycrypto
Name
T
Description
Version
pycrypto
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

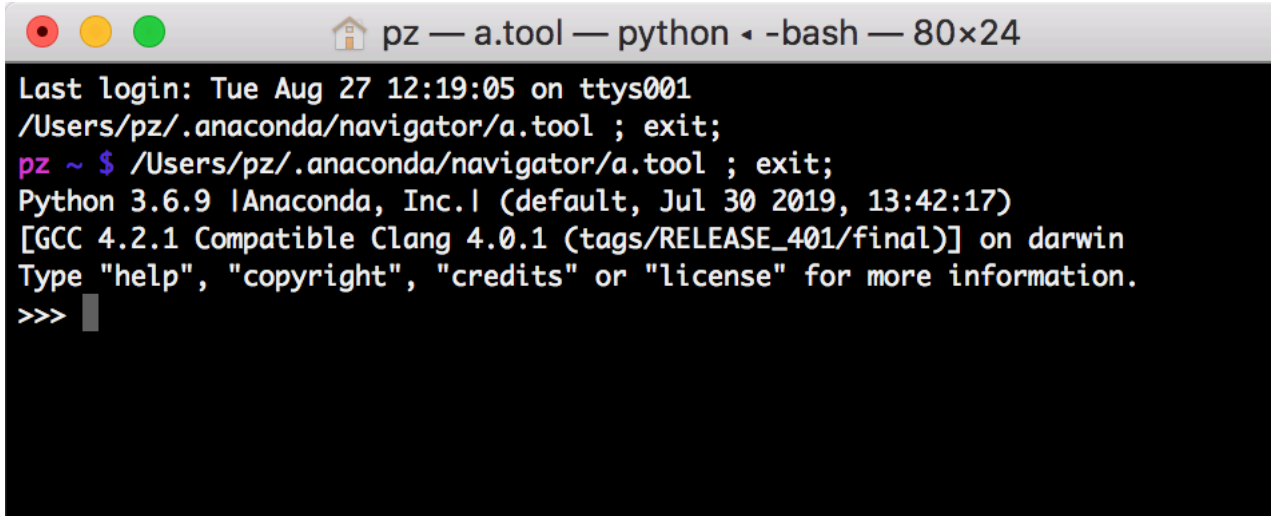

Not installed
Channels
Update index...
pycrypto
Install Packages
X
1 package will be installed
Name
Unlink
Link
Channel
1
pycrypto
-
2.6.1
pkgs/main
Cancel
Apply


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


pycoin
rl
Open Terminal
Open with Python

open terminal

open with Python



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.