OneShell

Mitchell

- Installing Python: Anaconda & PyCharm

Anaconda & PyCharm

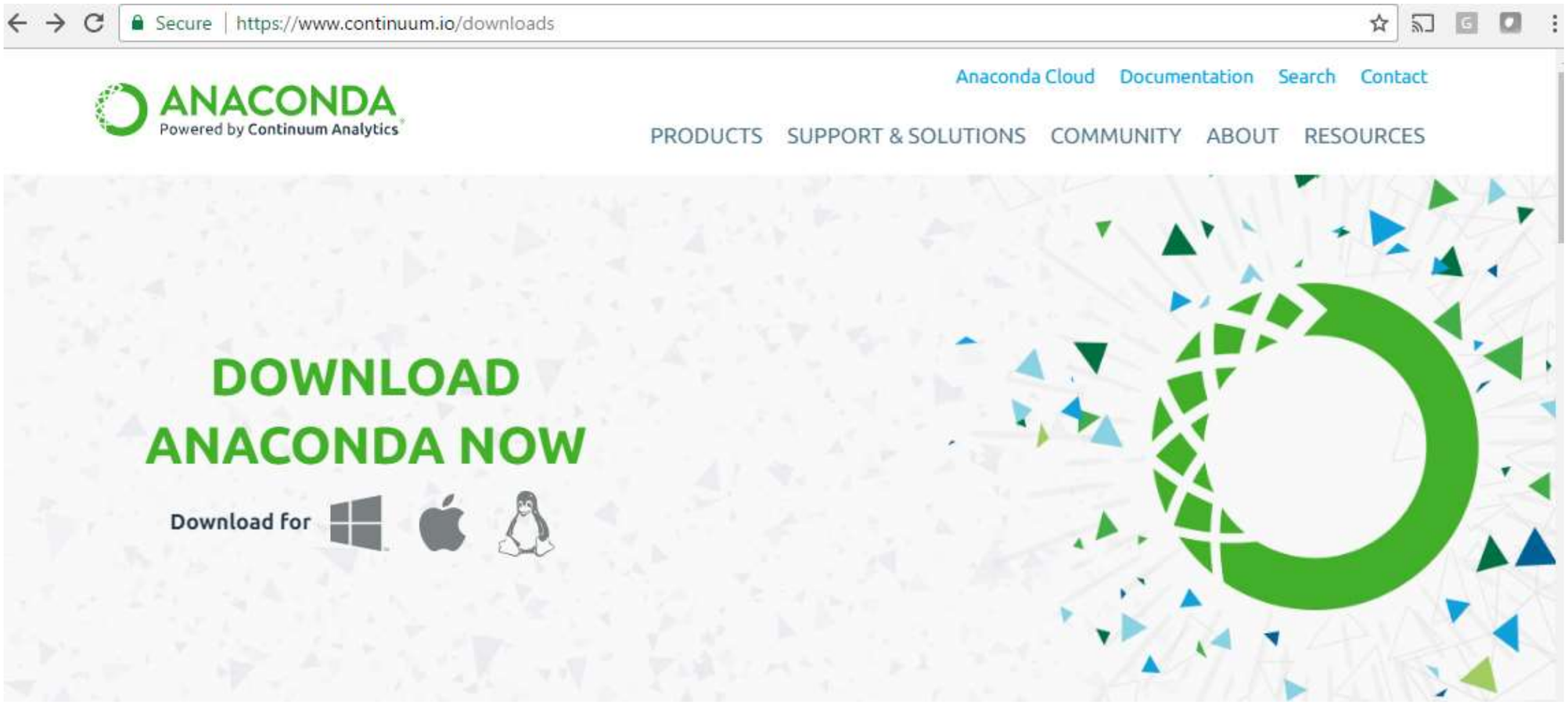
- **Anaconda**: open course distribution of Python aimed at simplifying package management and deployment
- **PyCharm**: an Integrated Development Environment (IDE) used specifically for the Python language

Anaconda & PyCharm

- Begin by downloading & installing both programs

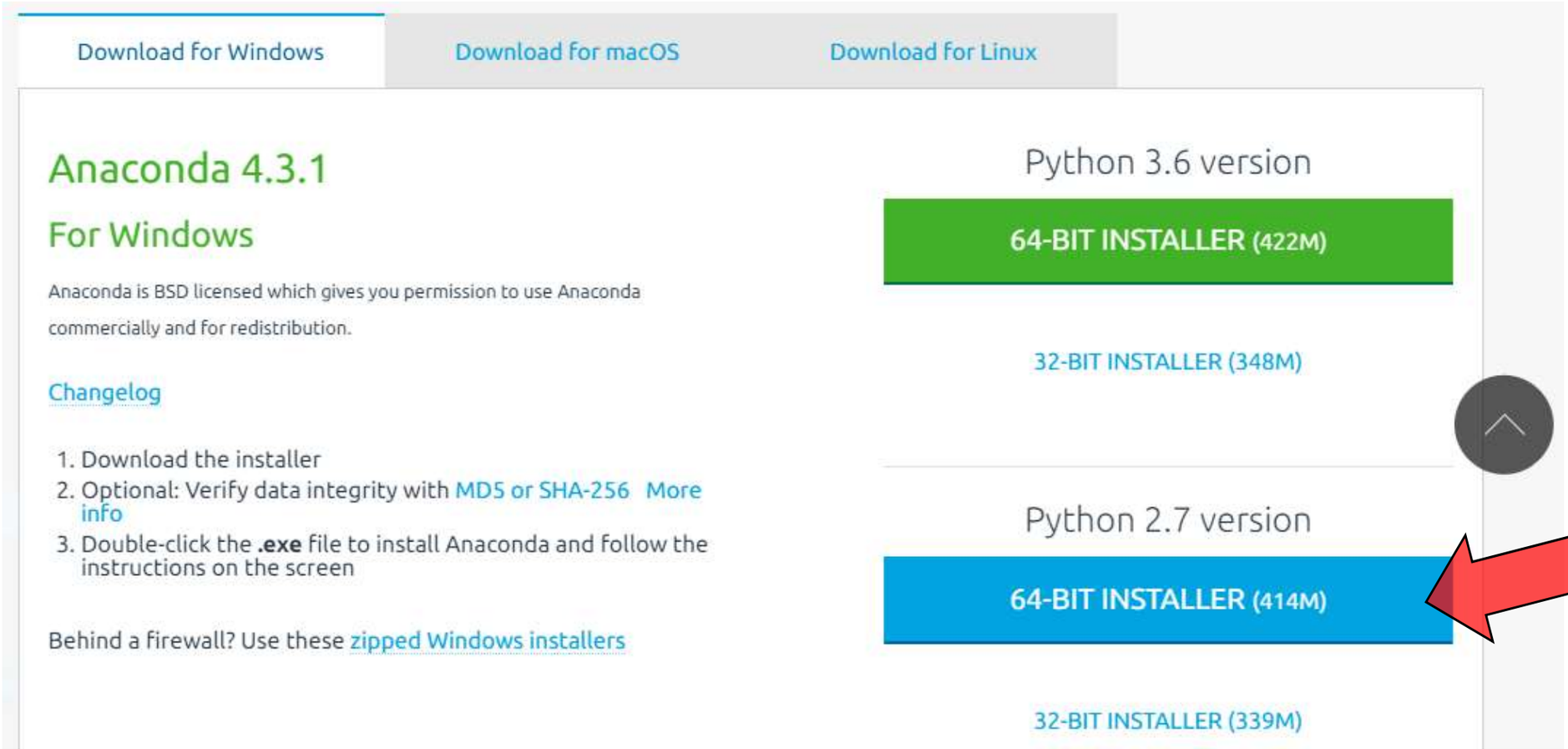
Anaconda

- Download from: https://www.continuum.io/downloads



Anaconda

- Download from: https://www.continuum.io/downloads



PyCharm

- Download from: https://www.jetbrains.com/pycharm/

PyCharm

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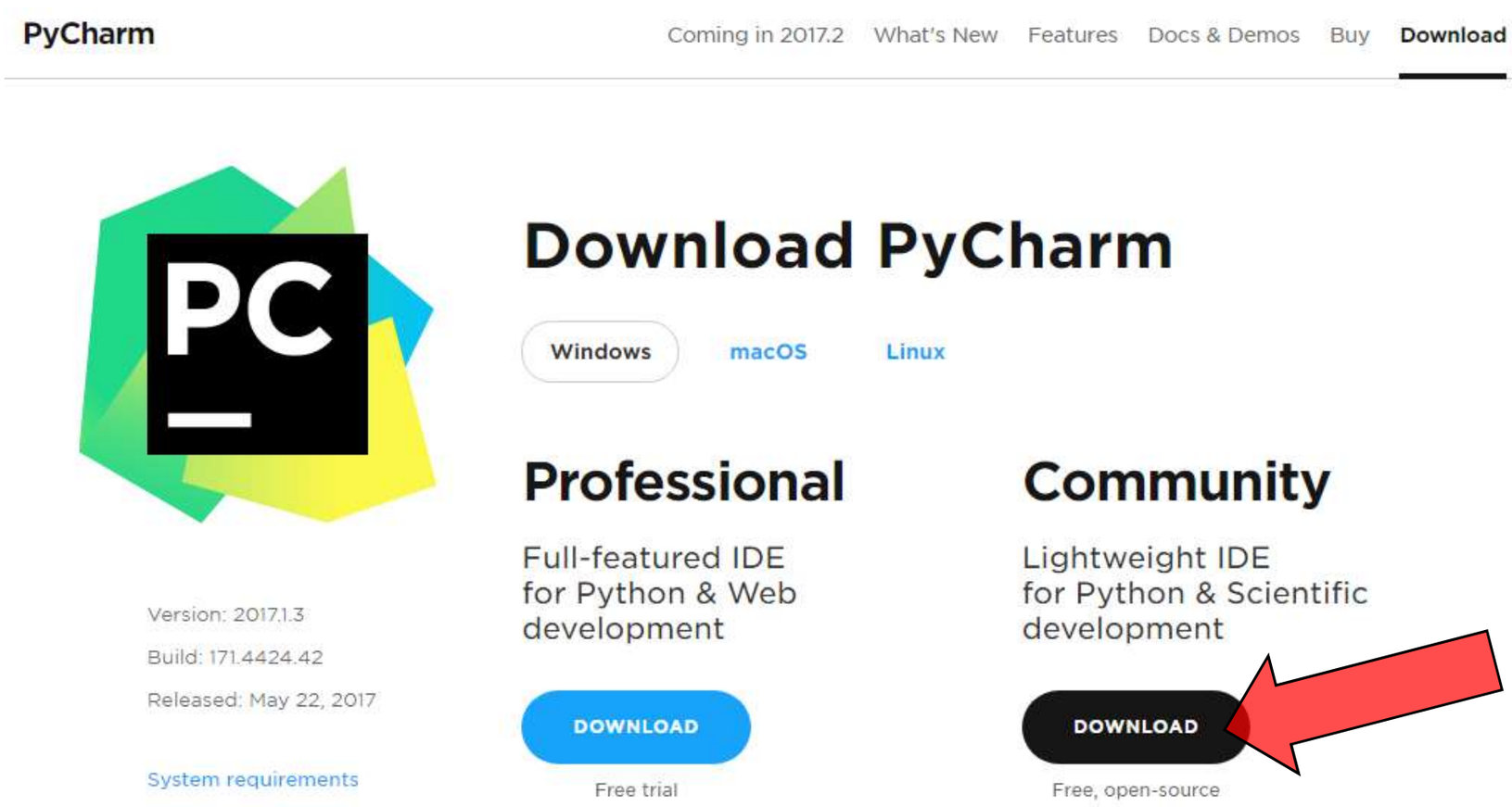
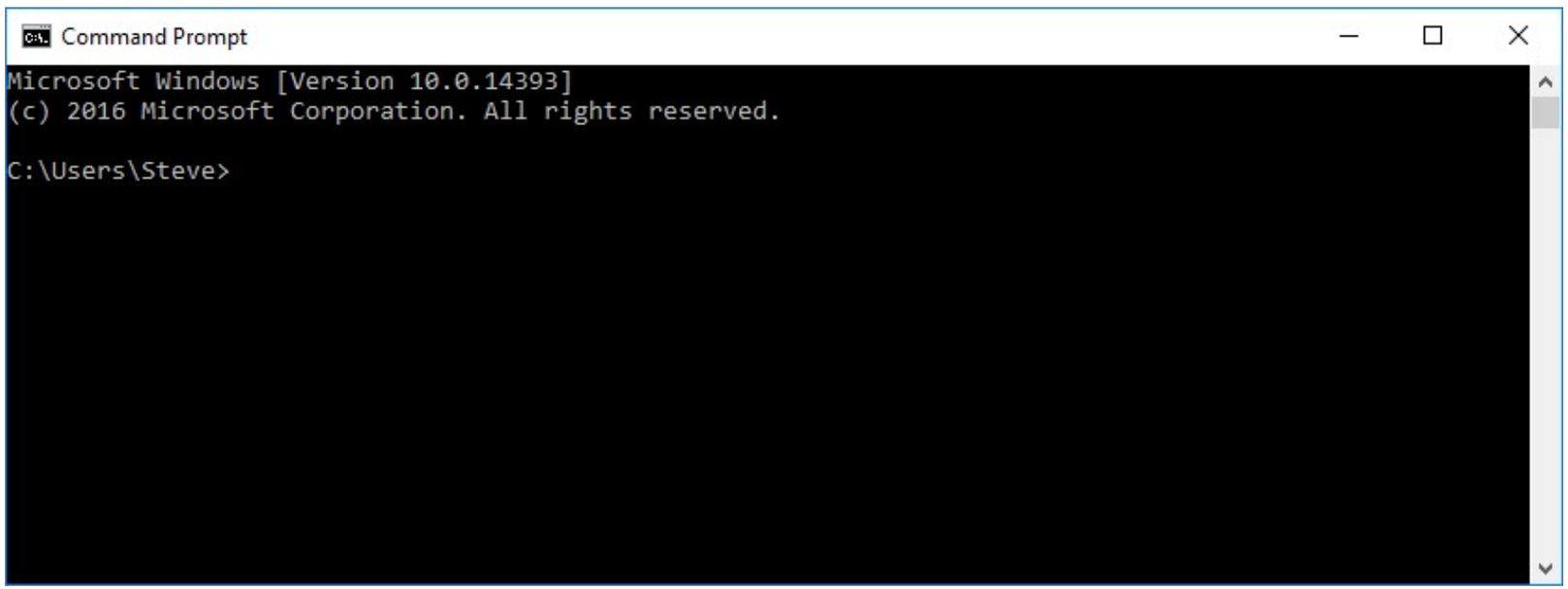


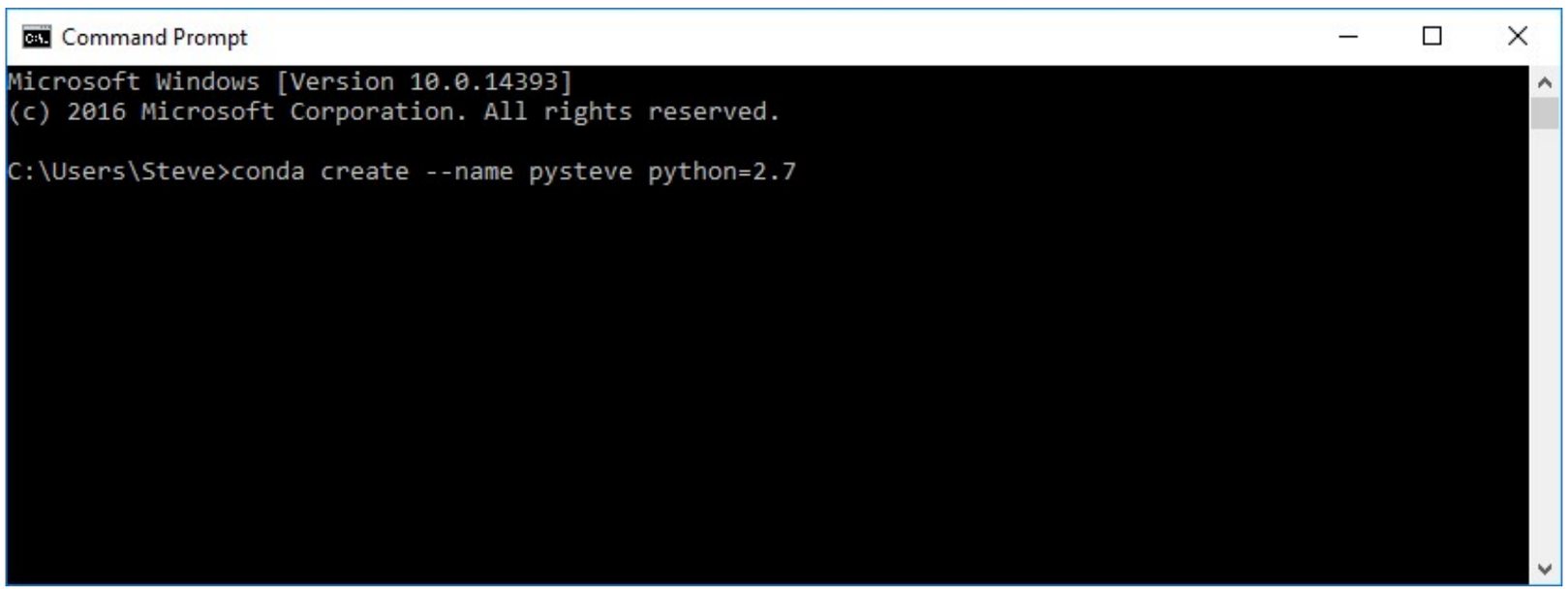
Installation

- Open a command line prompt
- In Windows: right-click on Start button > Command Prompt



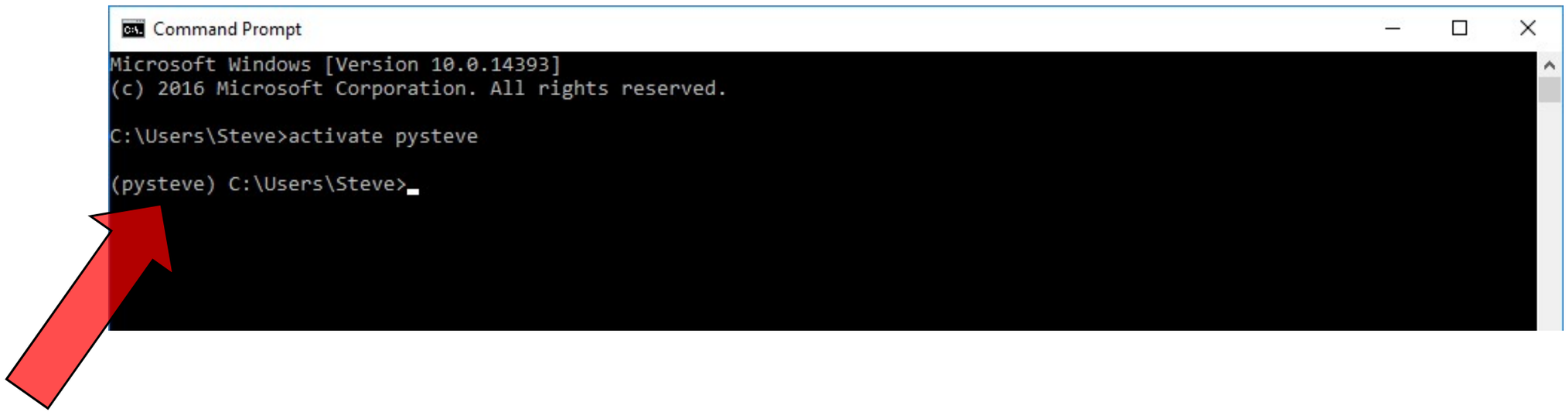
Installation

- Type: conda create --name <name here> python=2.7
- <name here> is the name of the environment you are creating
- This example: conda create --name pysteve python=2.7



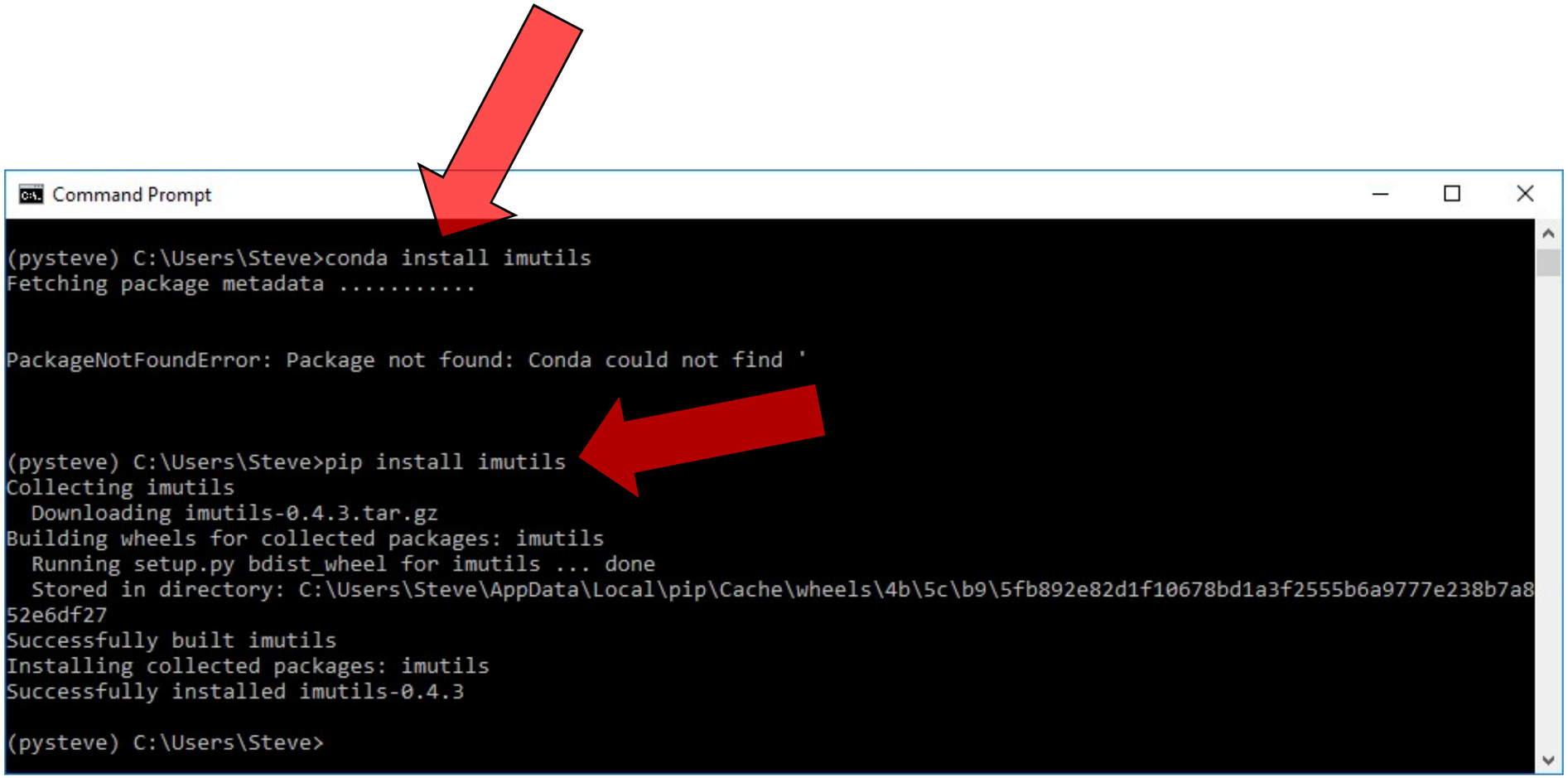
Installation

- Activate the environment
- Type: activate <name here>
- This example: activate pysteve



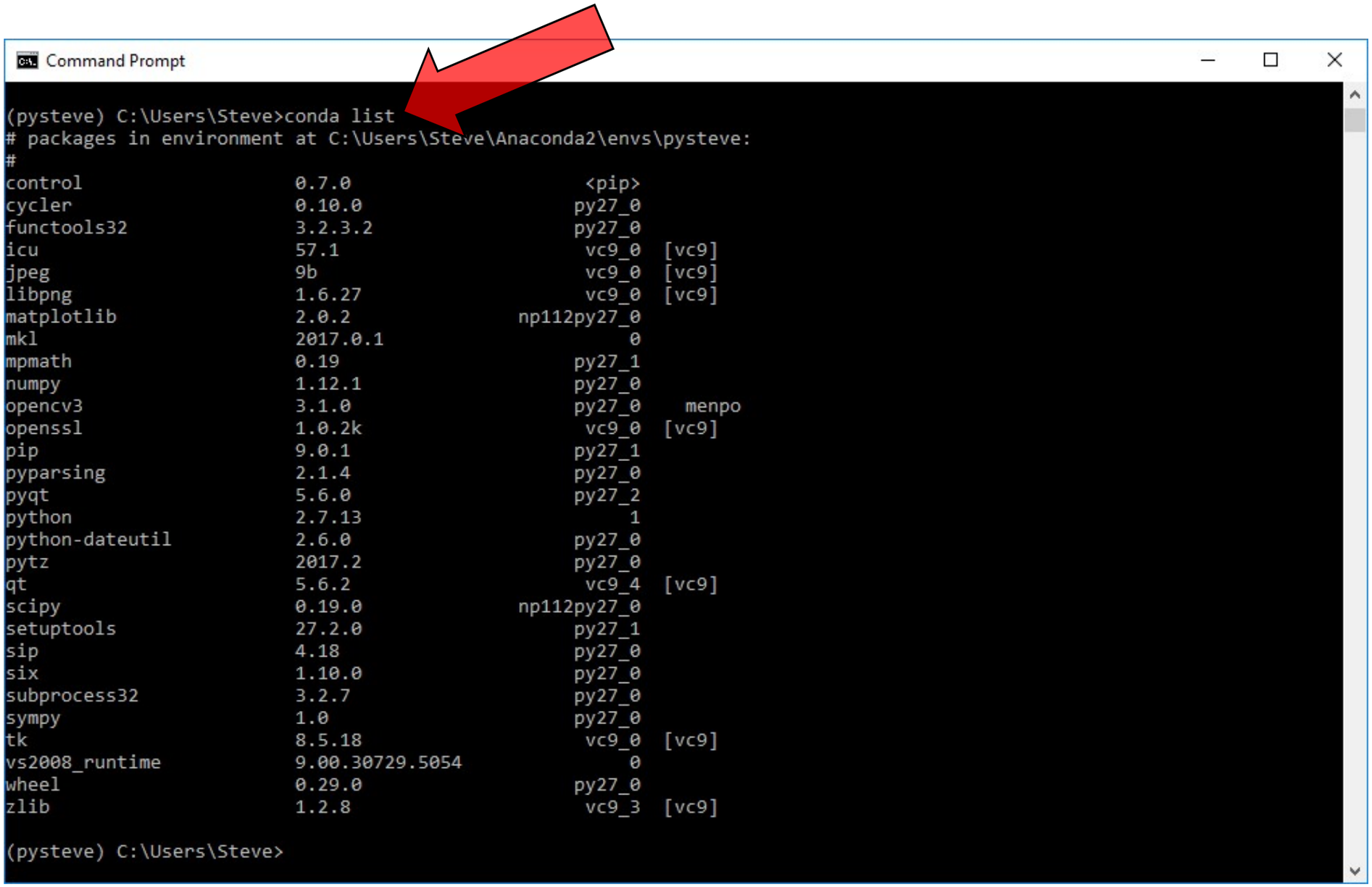
Installation

- Install desired packages
- Type: conda install <name here> or pip install <name here>
- For example: conda install imutils or pip install imutils


Command Prompt
(pysteve) C:\Users\Steve>conda install imutils
Fetching package metadata ....
PackageNotFoundError: Package not found: Conda could not find '
(pysteve) C:\Users\Steve>pip install imutils
Collecting imutils
Downloading imutils-0.4.3.tar.gz
Building wheels for collected packages: imutils
Running setup.py bdist_wheel for imutils ... done
Stored in directory: C:\Users\Steve\AppData\Local\pip\Cache\wheels\4b\5c\b9\5fb892e82d1f10678bd1a3f2555b6a9777e238b7a8
52e6df27
Successfully built imutils
Installing collected packages: imutils
Successfully installed imutils-0.4.3
(pysteve) C:\Users\Steve>

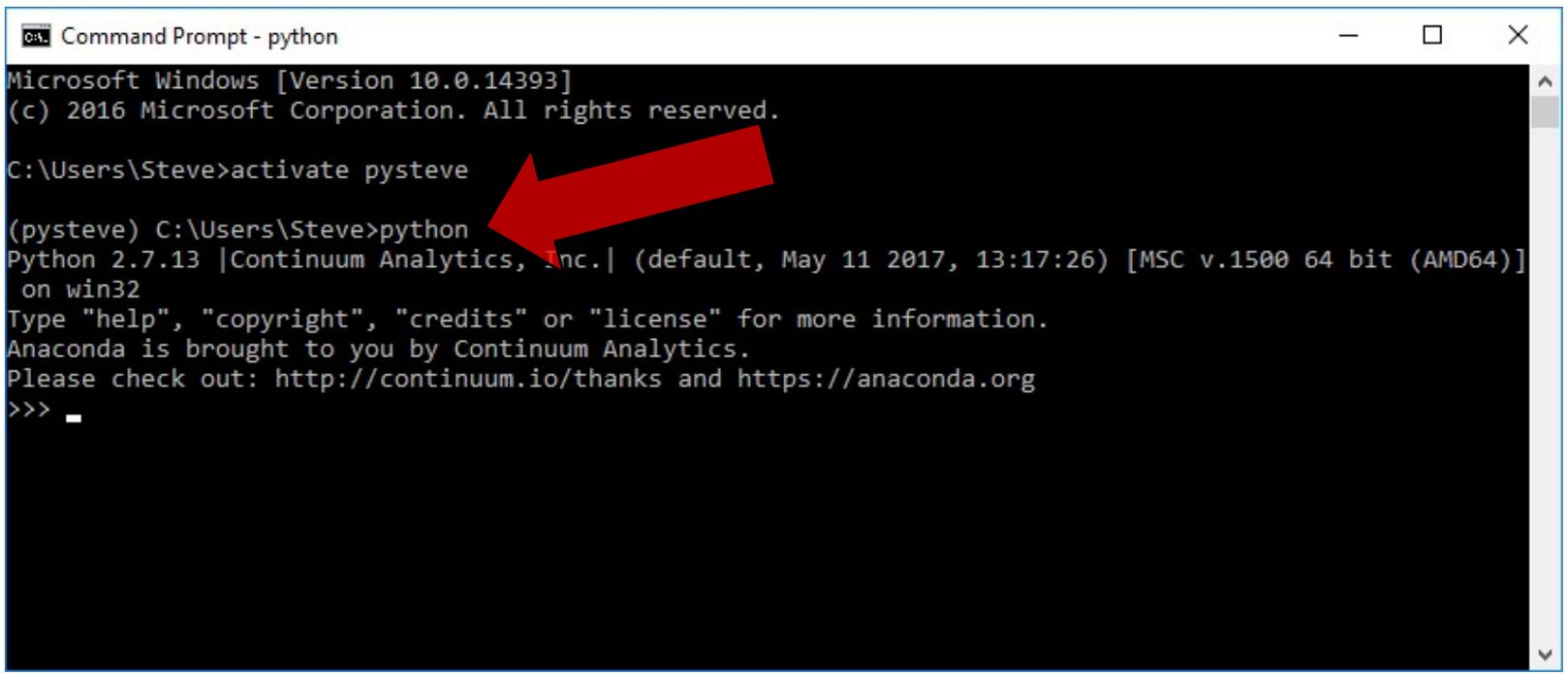
Installation

- Confirm packages have been installed
- Type: conda list
- Lists all packages installed in the <name here> environment


Command Prompt
(pysteve) C:\Users\Steve>conda list
packages in environment at C:\Users\Steve\Anaconda2\envs\pysteve:
#
control 0.7.0 <pip>
cycler 0.10.0 py27_0
functools32 3.2.3.2 py27_0
icu 57.1 vc9_0 [vc9]
jpeg 9b vc9_0 [vc9]
libpng 1.6.27 vc9_0 [vc9]
matplotlib 2.0.2 np112py27_0
mkl 2017.0.1 0
mpmath 0.19 py27_1
numpy 1.12.1 py27_0
opencv3 3.1.0 py27_0 menpo
openssl 1.0.2k vc9_0 [vc9]
pip 9.0.1 py27_1
pyparsing 2.1.4 py27_0
pyqt 5.6.0 py27_2
python 2.7.13 1
python-dateutil 2.6.0 py27_0
pytz 2017.2 py27_0
qt 5.6.2 vc9_4 [vc9]
scipy 0.19.0 np112py27_0
setuptools 27.2.0 py27_1
sip 4.18 py27_0
six 1.10.0 py27_0
subprocess32 3.2.7 py27_0
sympy 1.0 py27_0
tk 8.5.18 vc9_0 [vc9]
vs2008_runtime 9.00.30729.5054 0
wheel 0.29.0 py27_0
zlib 1.2.8 vc9_3 [vc9]
(pysteve) C:\Users\Steve>

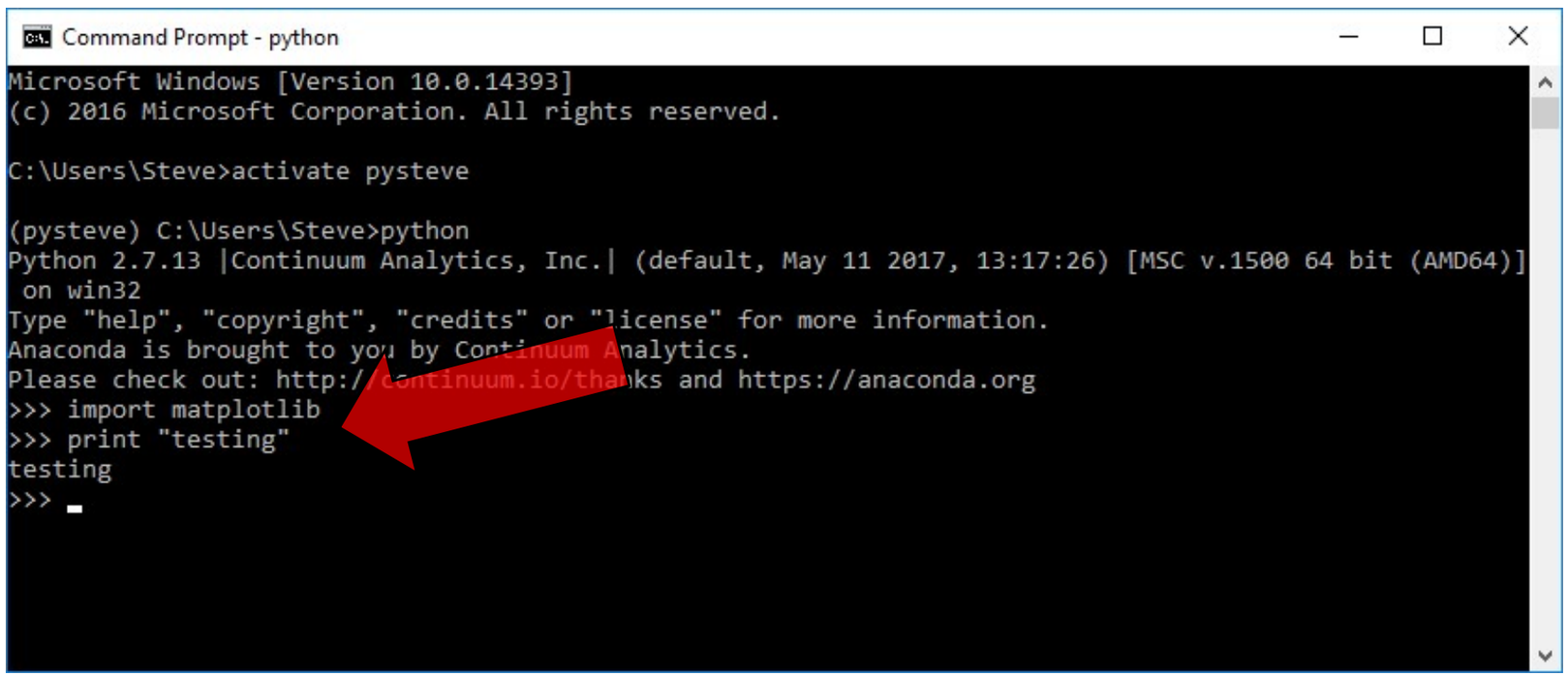
Installation

- Confirm packages function properly
- Open Python by typing: python



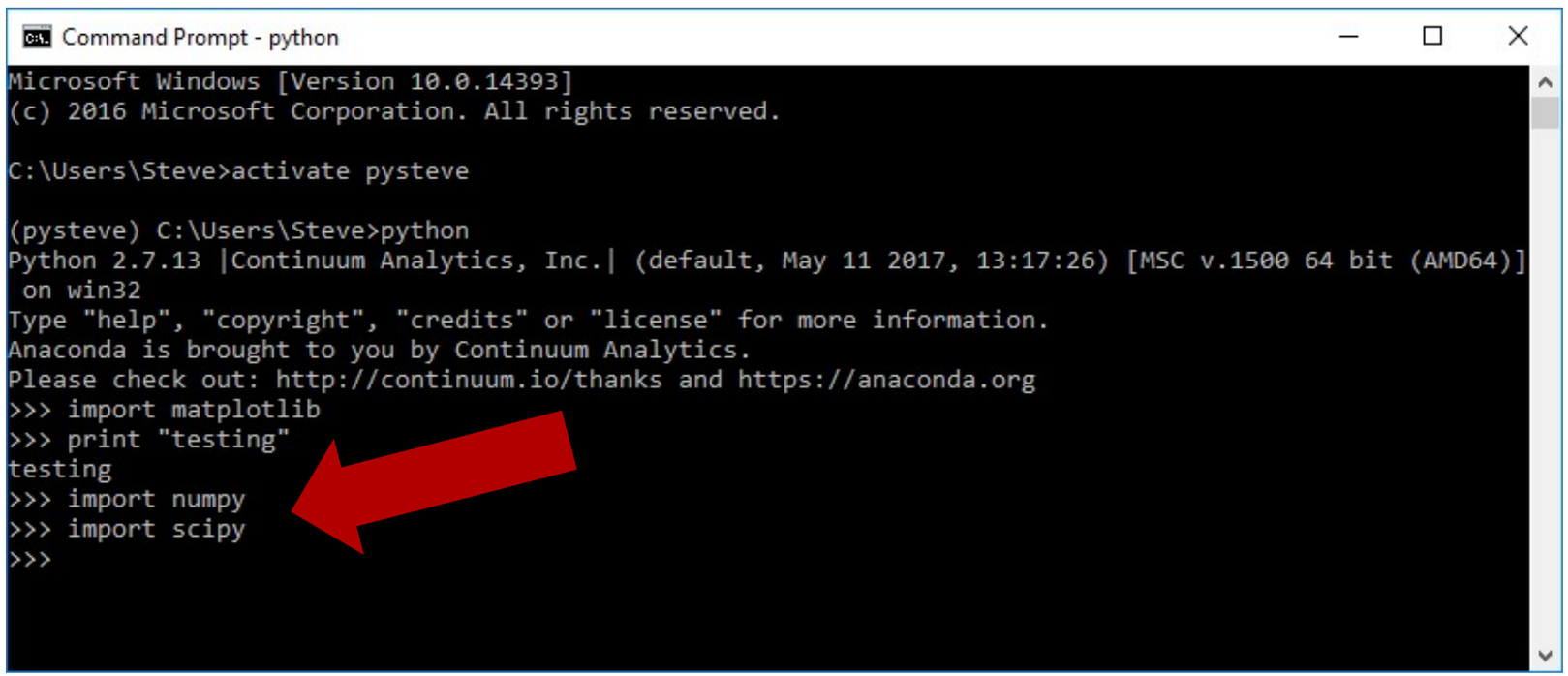
Installation

- Confirm packages function properly
- Import matplotlib by typing: python <Enter> then print “testing”



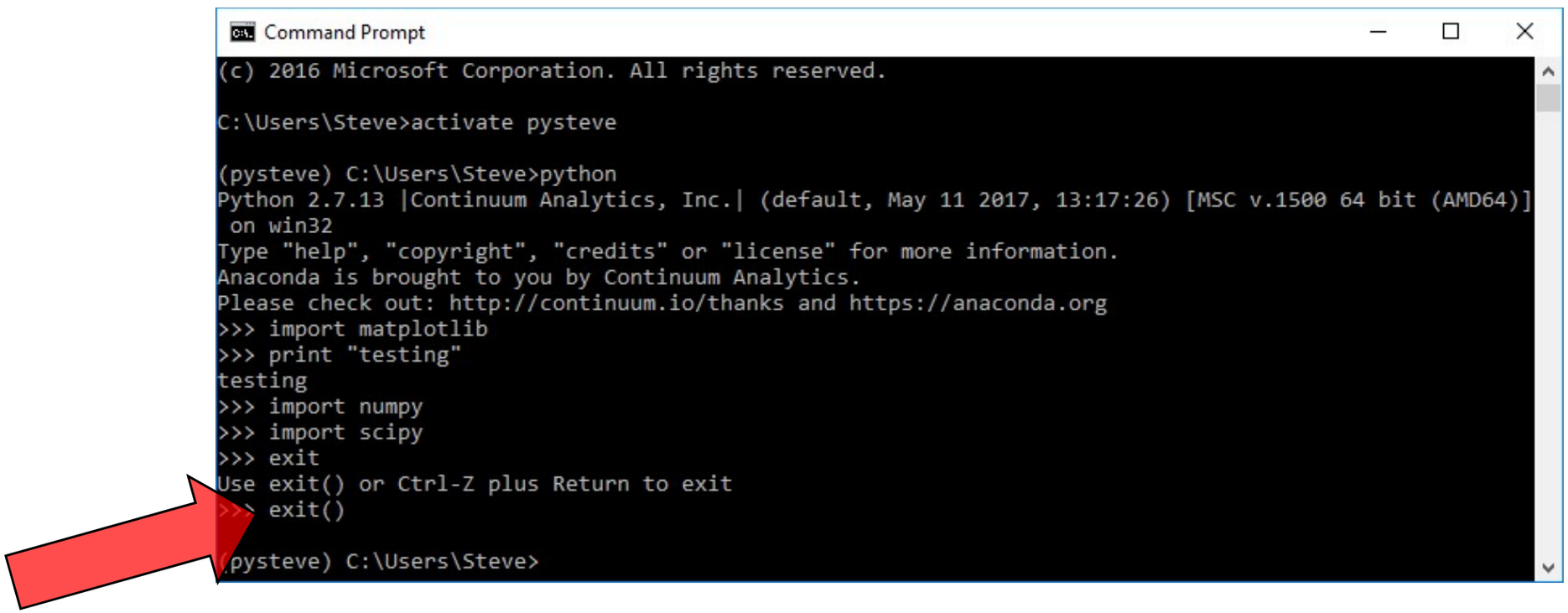
Installation

- Confirm packages function properly
- Import numpy and scipy: import numpy and import scipy



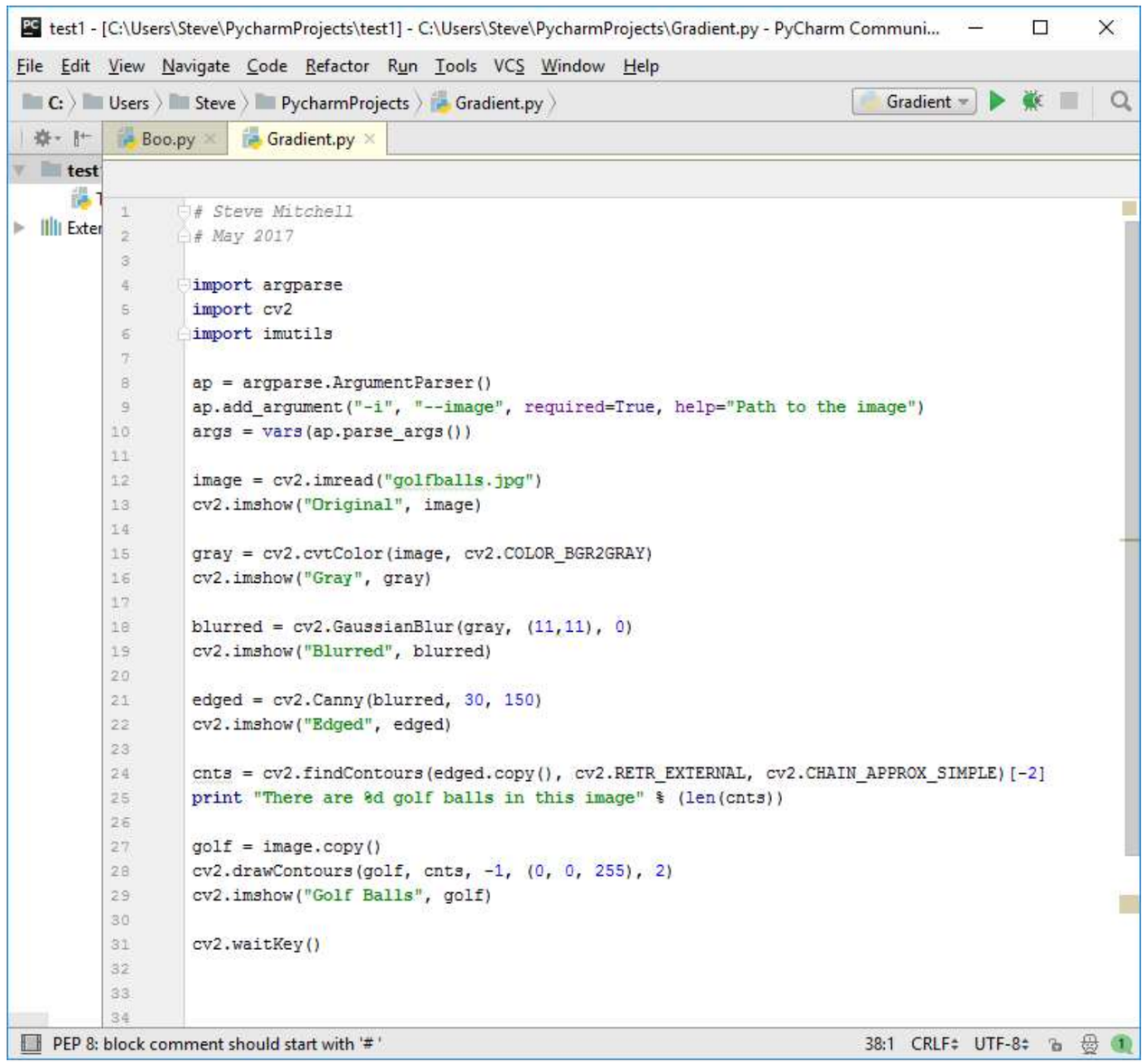
Installation

- Confirm packages function properly
- Exit Python by typing: exit()



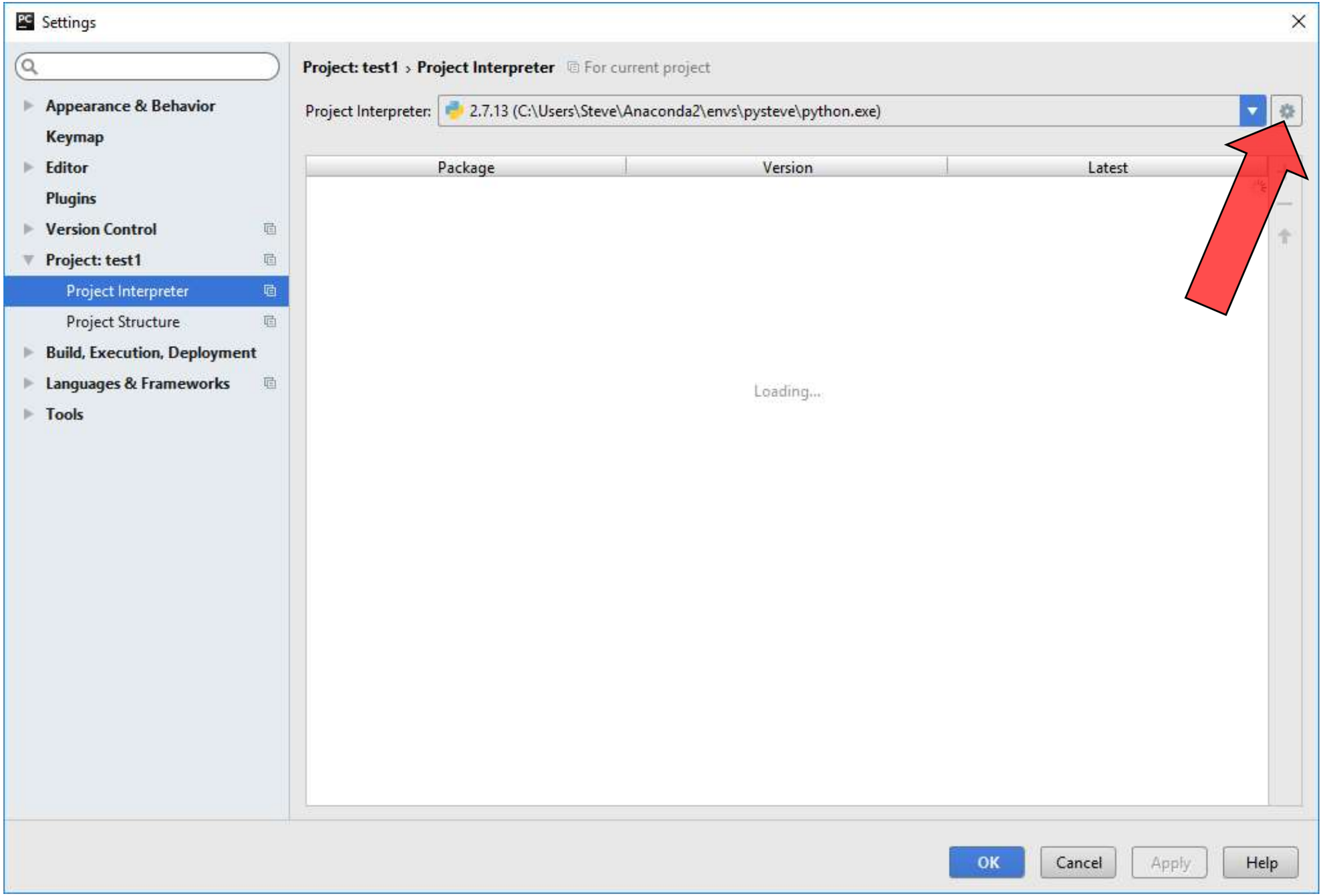
Installation

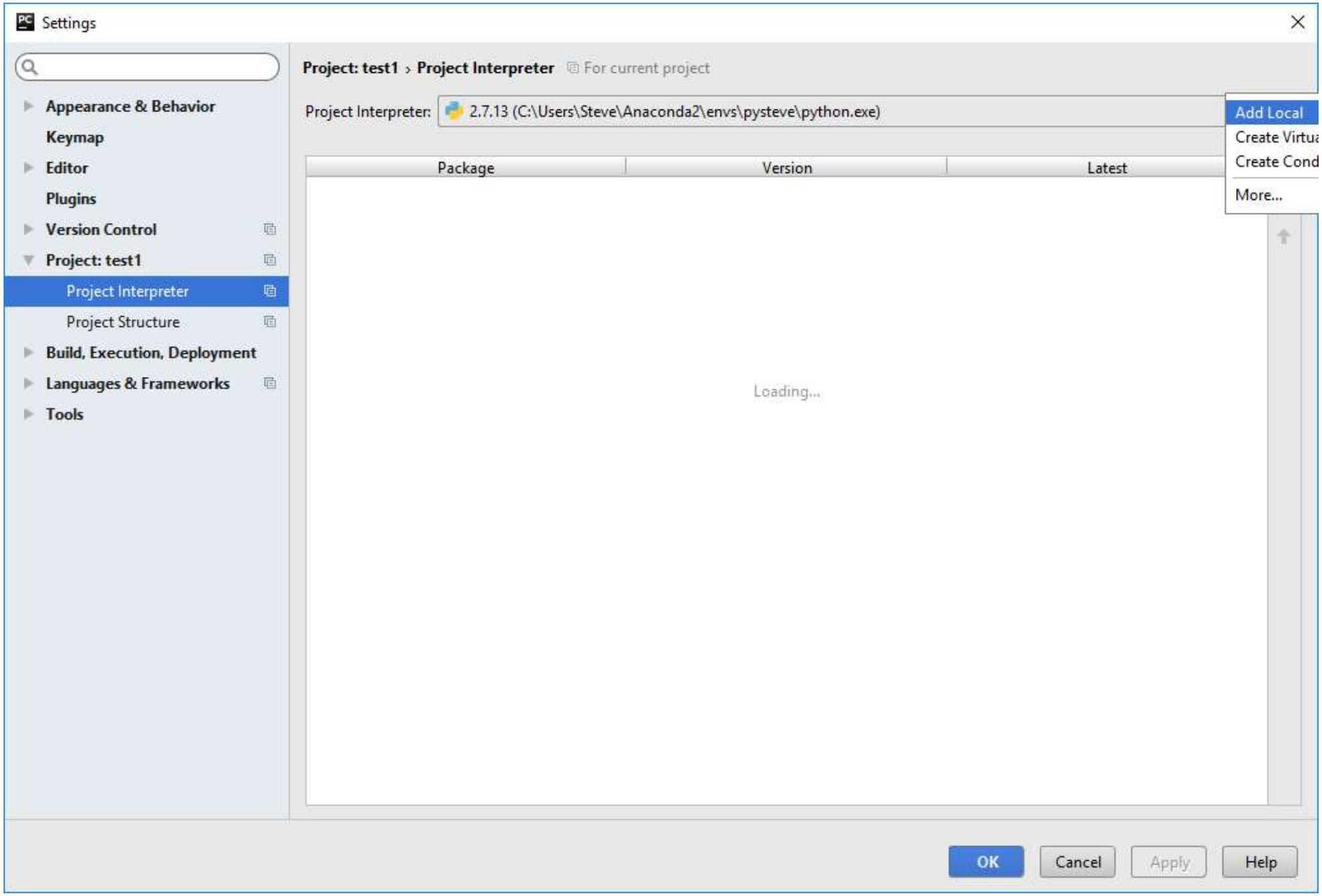
- Open PyCharm



Installation

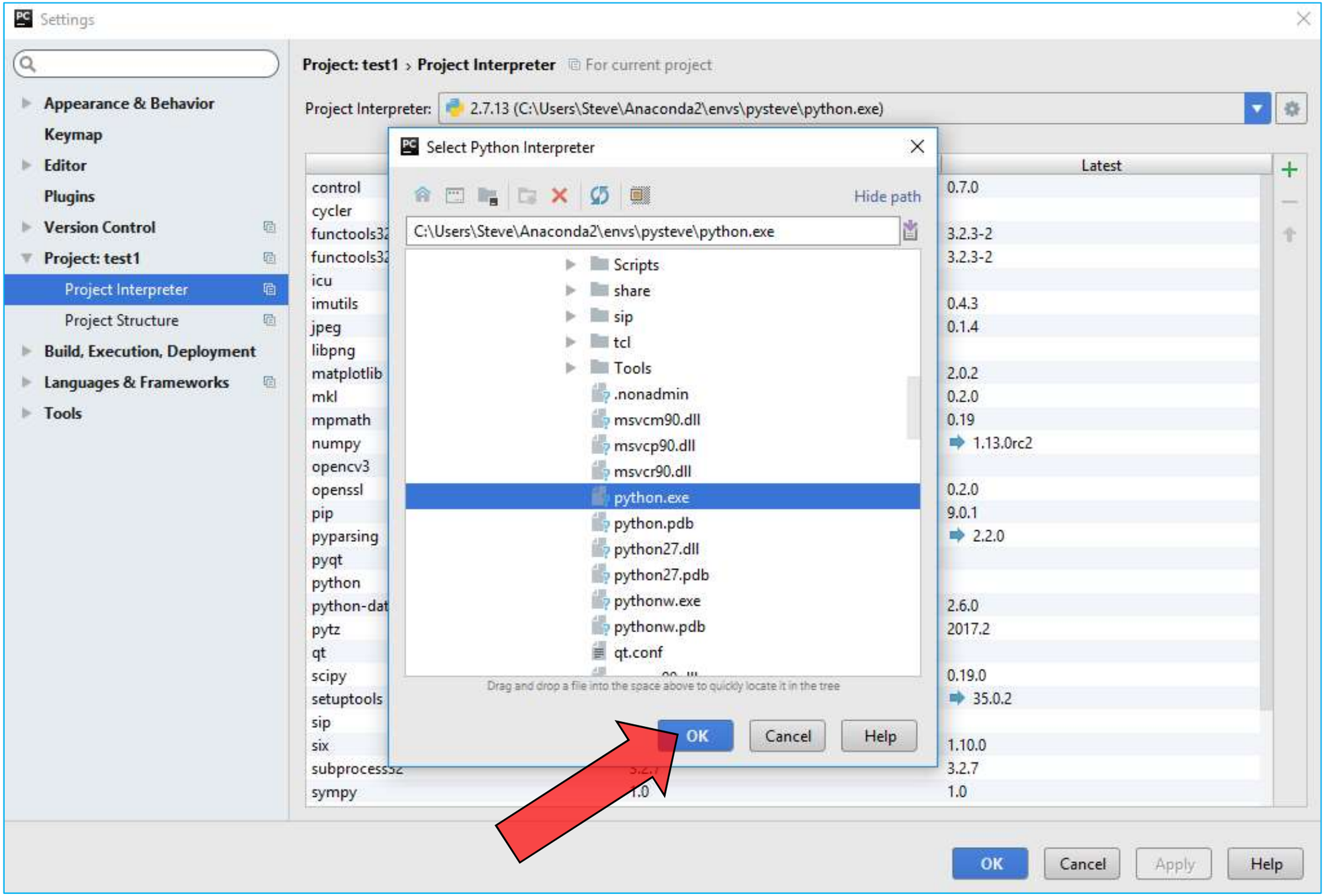
- Add local environment
- File > Settings
- Project Interpreter
- Add Local


Settings
Appearance & Behavior
Keymap
Editor
Plugins
Version Control
Project: test1
Project Interpreter
Project Structure
Build, Execution, Deployment
Languages & Frameworks
Tools
Project: test1 › Project Interpreter
For current project
Project Interpreter:
2.7.13 (C:\Users\Steve\Anaconda2\envs\pysteve\python.exe)
Package
Version
Latest
Loading...
OK
Cancel
Apply
Help


Settings
Project: test1 › Project Interpreter
For current project
Project Interpreter:
2.7.13 (C:\Users\Steve\Anaconda2\envs\pysteve\python.exe)
Add Local
Create Virtua
Create Cond
More...
Package
Version
Latest
Loading...
Appearance & Behavior
Keymap
Editor
Plugins
Version Control
Project: test1
Project Interpreter
Project Structure
Build, Execution, Deployment
Languages & Frameworks
Tools
OK
Cancel
Apply
Help

Installation

- Add local environment
- Locate python.exe in recently created environment
- Click OK


Settings
Project: test1 › Project Interpreter
For current project
Project Interpreter:
2.7.13 (C:\Users\Steve\Anaconda2\envs\pysteve\python.exe)
Appearance & Behavior
Keymap
Editor
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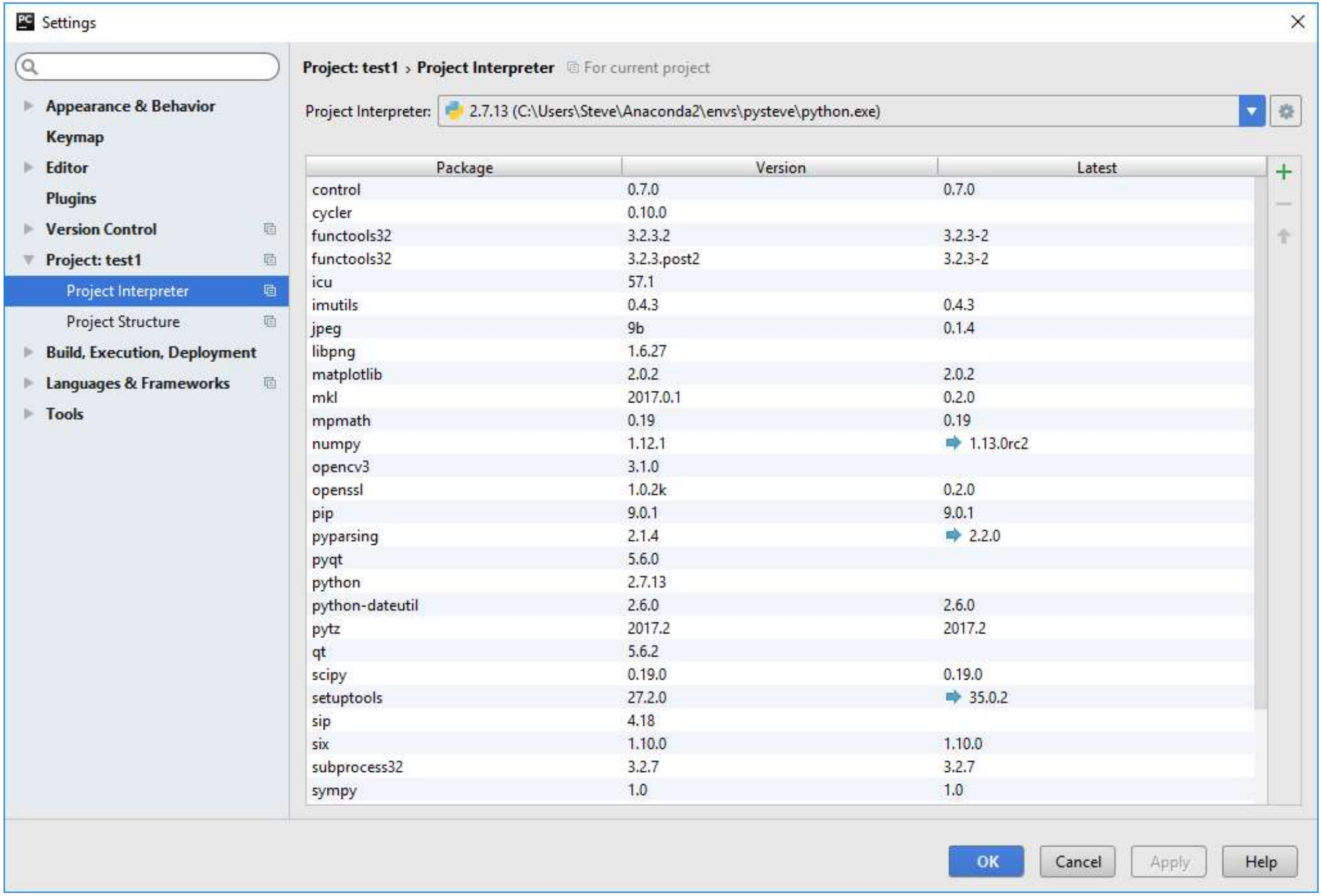
Version Control
Project: test1
Project Interpreter
Project Structure
Build, Execution, Deployment
Languages & Frameworks
Tools
Latest
control 0.7.0
cycler
functools32 3.2.3-2
functools32 3.2.3-2
icu
imutils 0.4.3
jpeg 0.1.4
libpng
matplotlib 2.0.2
mkl 0.2.0
mpmath 0.19
numpy 1.13.0rc2
opencv3
openssl 0.2.0
pip 9.0.1
pyparsing 2.2.0
pyqt
python
python-dat 2.6.0
pytz 2017.2
qt
scipy 0.19.0
setuptools 35.0.2
sip
six 1.10.0
subprocess32 3.2.7
sympy 1.0 1.0
Select Python Interpreter
Hide path
C:\Users\Steve\Anaconda2\envs\pysteve\python.exe
Scripts
share
sip
tcl
Tools
.nonadmin
msvcm90.dll
msvcp90.dll
msvcr90.dll
python.exe
python.pdb
python27.dll
python27.pdb
pythonw.exe
pythonw.pdb
qt.conf
Drag and drop a file into the space above to quickly locate it in the tree
OK
Cancel
Help
OK
Cancel
Apply
Help

Installation

- Similar to typing conda list in the Command Prompt, installed packages are listed in PyCharm


Settings
Appearance & Behavior
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Plugins
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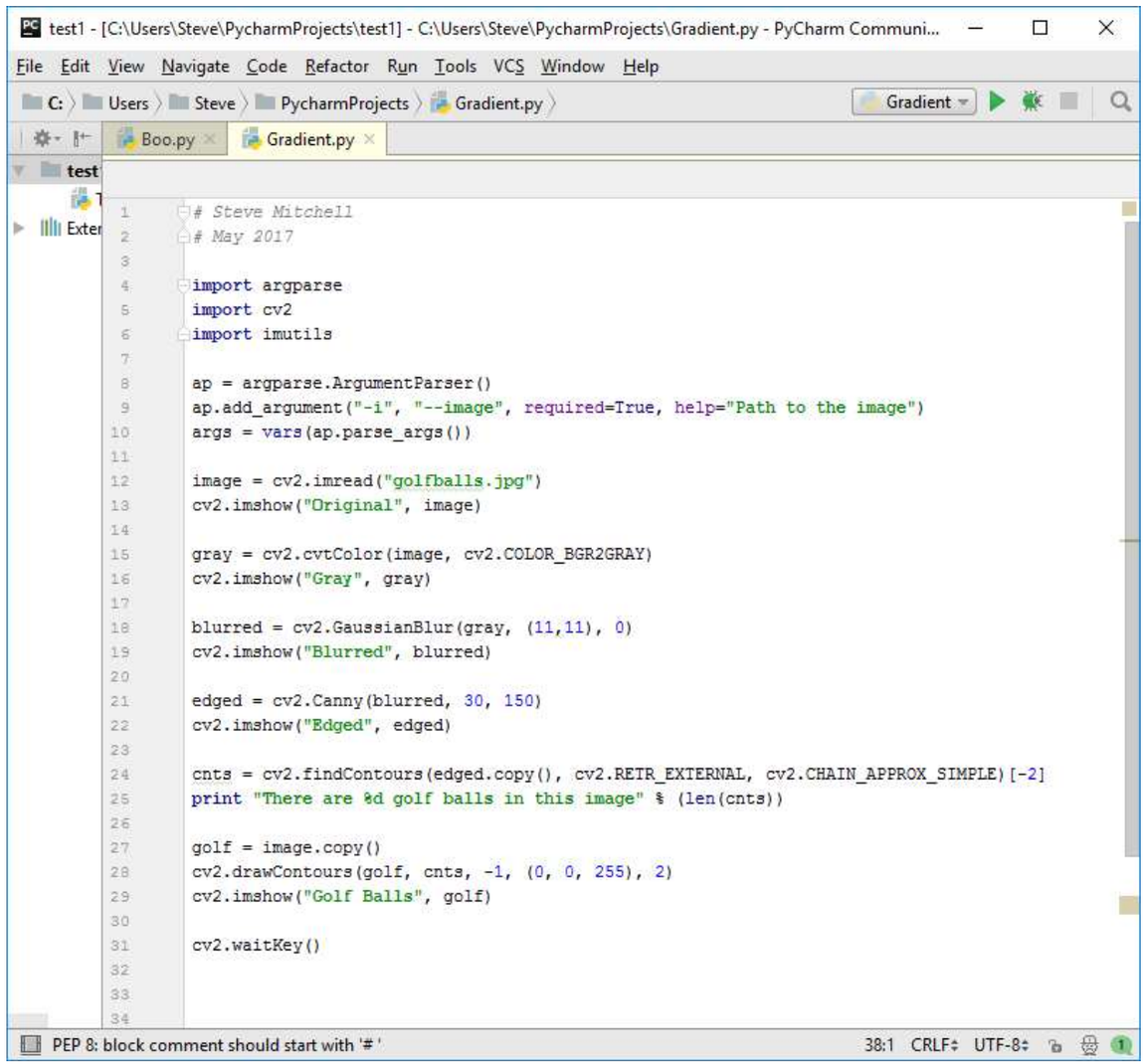
Project: test1
Project Interpreter
Project Structure
Build, Execution, Deployment
Languages & Frameworks
Tools
Project: test1 › Project Interpreter
For current project
Project Interpreter: 2.7.13 (C:\Users\Steve\Anaconda2\envs\pysteve\python.exe)
Package
Version
Latest
control 0.7.0 0.7.0
cycler 0.10.0
functools32 3.2.3.2 3.2.3-2
functools32 3.2.3.post2 3.2.3-2
icu 57.1
imutils 0.4.3 0.4.3
jpeg 9b 0.1.4
libpng 1.6.27
matplotlib 2.0.2 2.0.2
mkl 2017.0.1 0.2.0
mpmath 0.19 0.19
numpy 1.12.1 1.13.0rc2
opencv3 3.1.0
openssl 1.0.2k 0.2.0
pip 9.0.1 9.0.1
pyparsing 2.1.4 2.2.0
pyqt 5.6.0
python 2.7.13
python-dateutil 2.6.0 2.6.0
pytz 2017.2 2017.2
qt 5.6.2
scipy 0.19.0 0.19.0
setuptools 27.2.0 35.0.2
sip 4.18
six 1.10.0 1.10.0
subprocess32 3.2.7 3.2.7
sympy 1.0 1.0
OK
Cancel
Apply
Help

Installation

- Additional packages can be added at any time by returning to Anaconda via the Command Prompt
- Be sure to active the environment, then type conda install <name here> or pip install <name here>

Installation

- Start coding in Python!



References

- *Anaconda*
  - https://www.continuum.io/Anaconda-Overview
- *PyCharm*
  - https://www.jetbrains.com/pycharm/
- *Getting started with python through Anaconda and PyCharm: Installation 1/2*
  - https://www.youtube.com/watch?v=y-B2sybfX80
- *Getting started with python through Anaconda and PyCharm: Installation 2/2*
  - https://www.youtube.com/watch?v=nuFpkBc_5Ks
- A complete tutorial to learn data science with Python from scratch
  - https://www.analyticsvidhya.com/blog/2016/01/complete-tutorial-learn-data-science-python-scratch-2/
- Ultimate guide for data exploration in Python using NumPy, Matplotlib, and Pandas
  - https://www.analyticsvidhya.com/blog/2015/04/comprehensive-guide-data-exploration-sas-using-python-numpy-scipy-matplotlib-pandas/