ENPM 809T

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Anaconda & Python

- **Anaconda**: open course distribution of Python aimed at simplifying package management and deployment
- **Python**: an interpreted, high-level, general-purpose programming language first released in 1991

Anaconda & Python

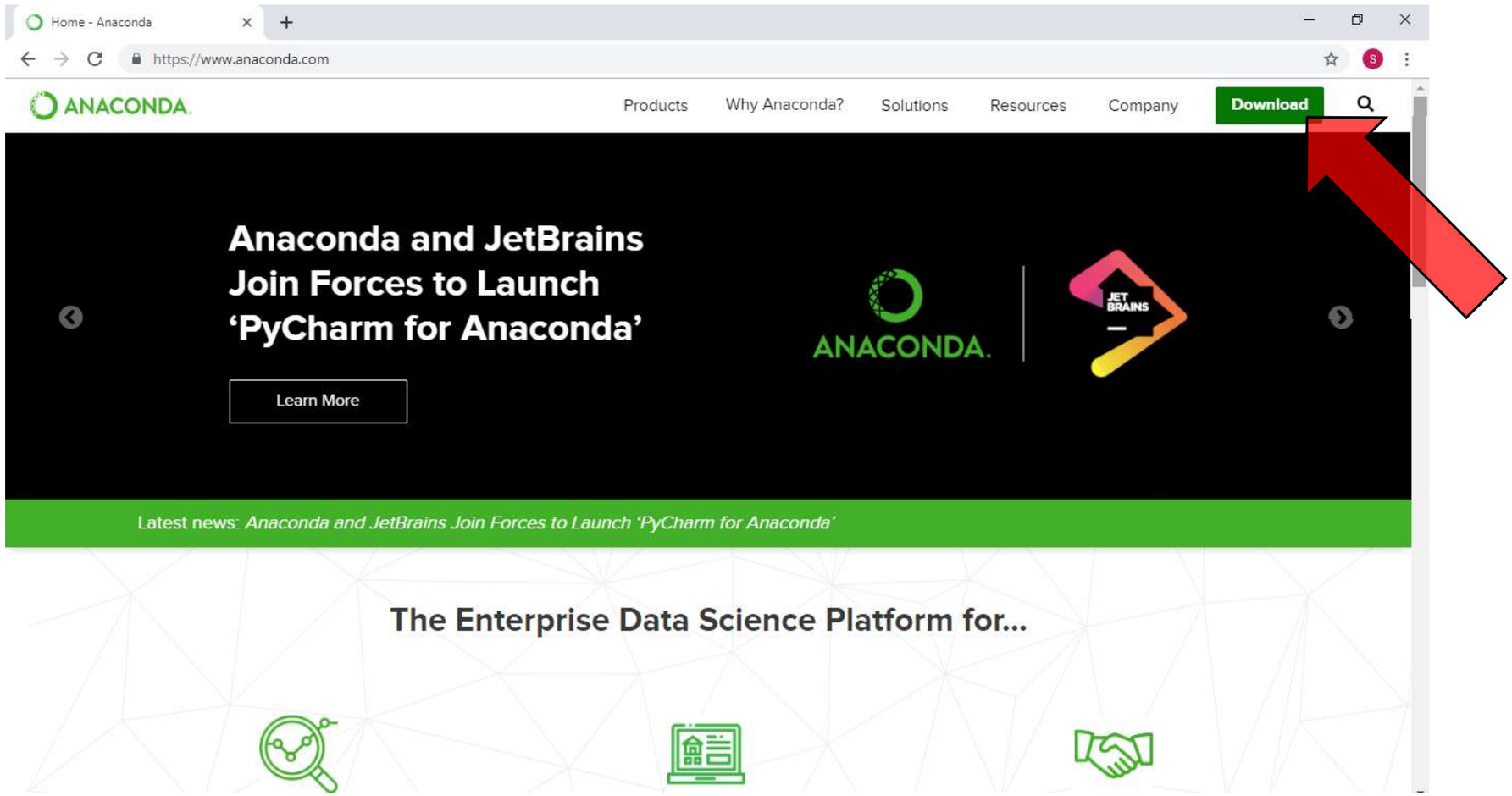
- Begin by downloading & installing Anaconda

**Video tutorials available on the course YouTube channel:

https://www.youtube.com/watch?v=6iI4VqAtkUg&list=PLekqOMAzgrTQK6XTwWWuIo3W9LR4XwIT5

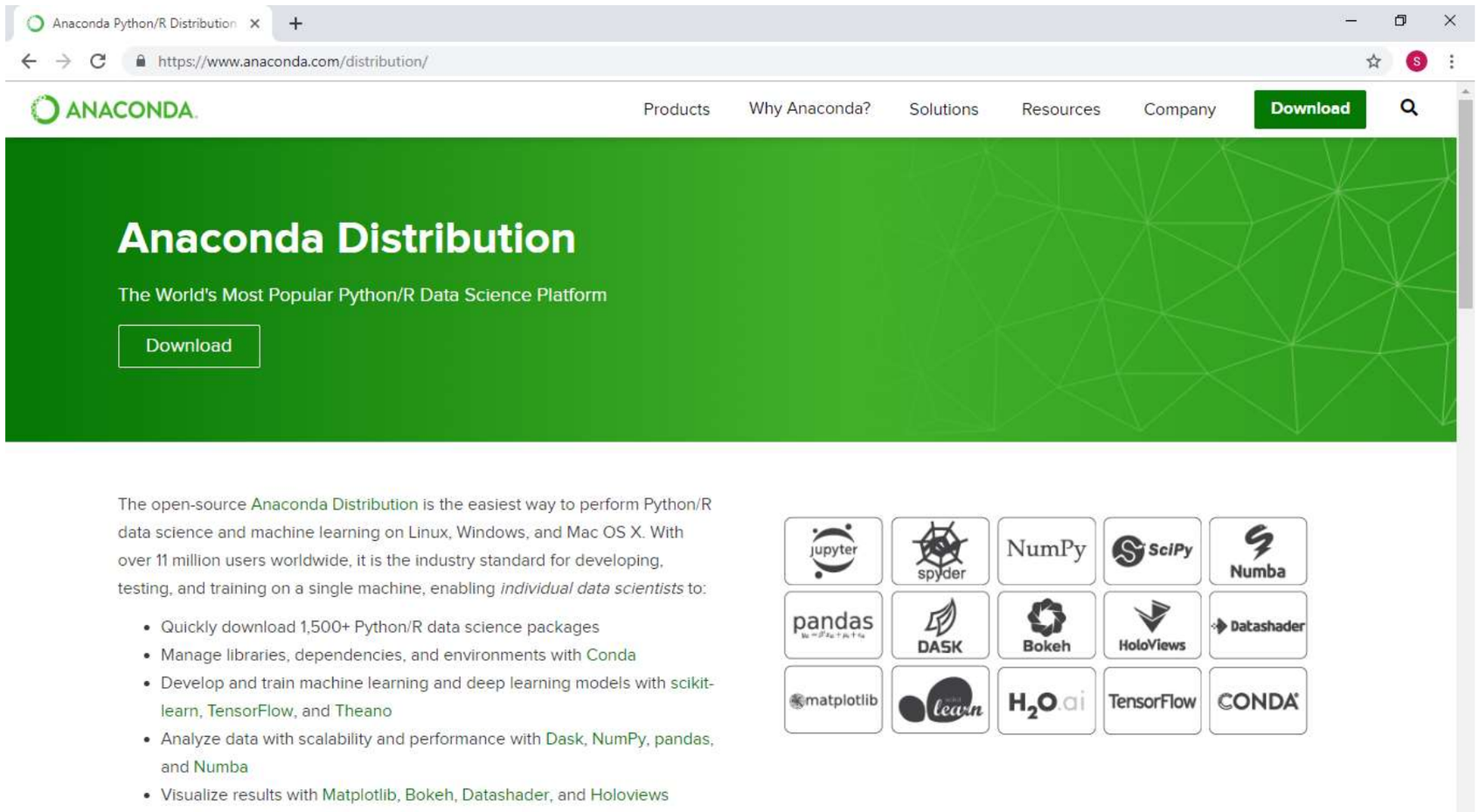
Anaconda

- Head to: https://www.anaconda.com and click Download



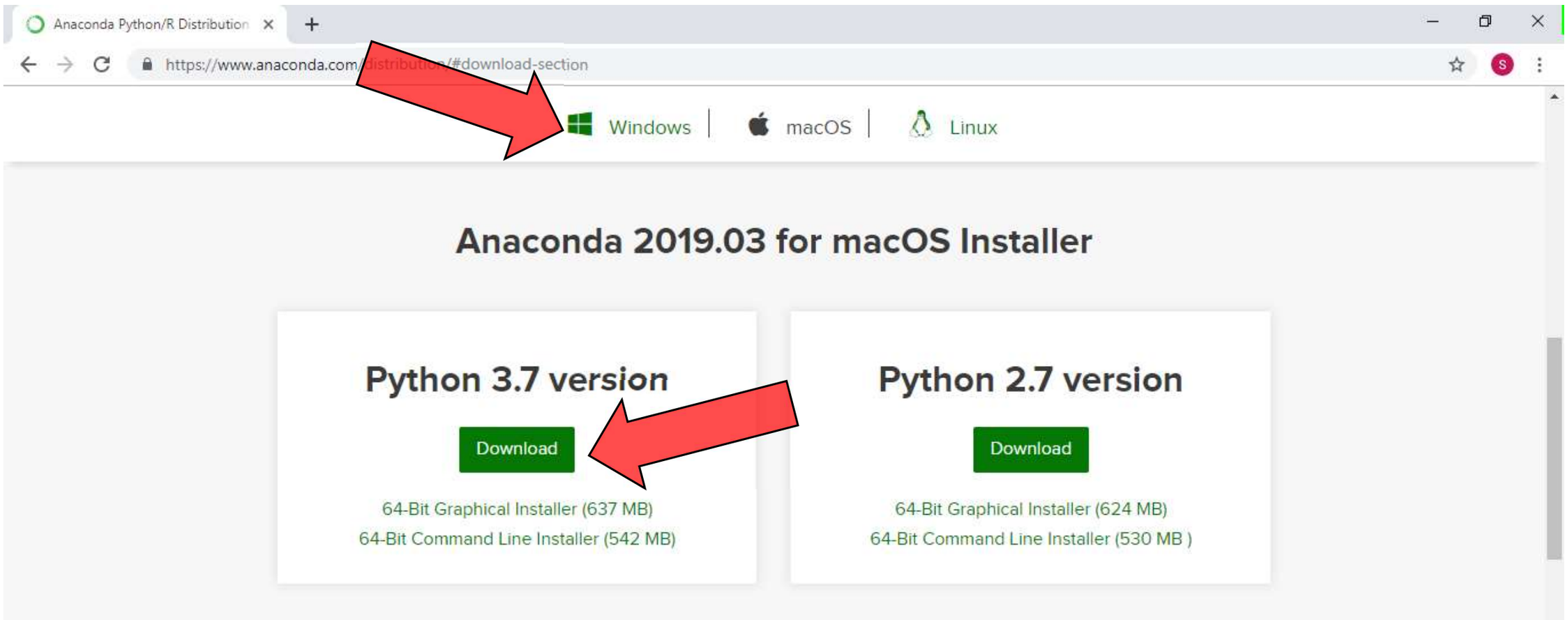
Anaconda

- From the download page, scroll down…



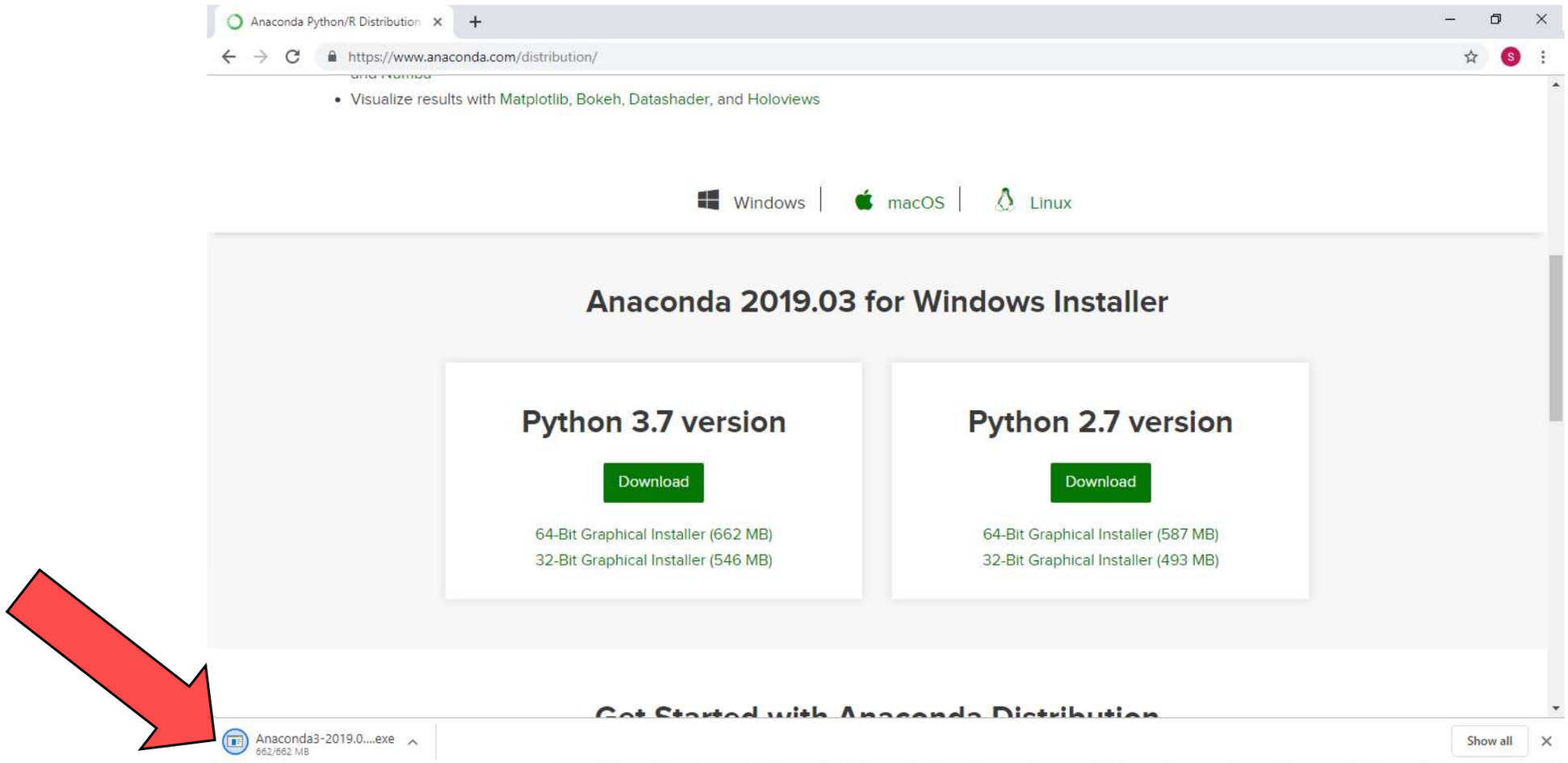
Anaconda

- …and choose your operating system then click Download



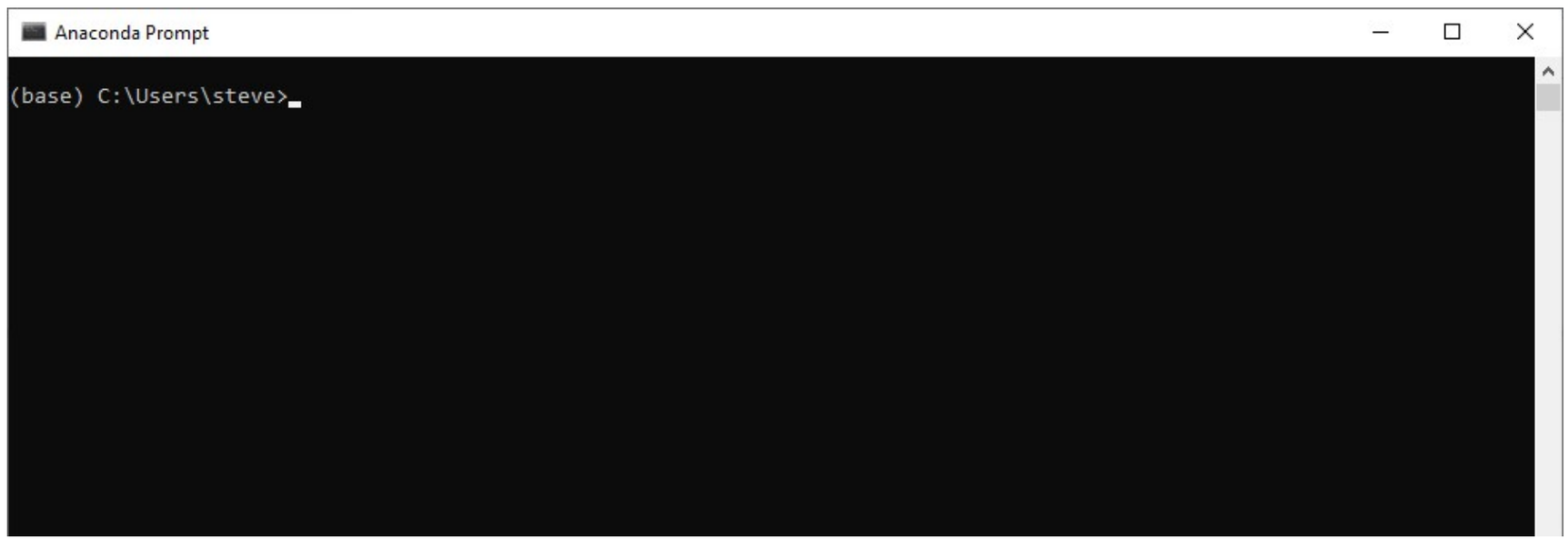
Installation

- Once finished downloading, install Anaconda



Installation

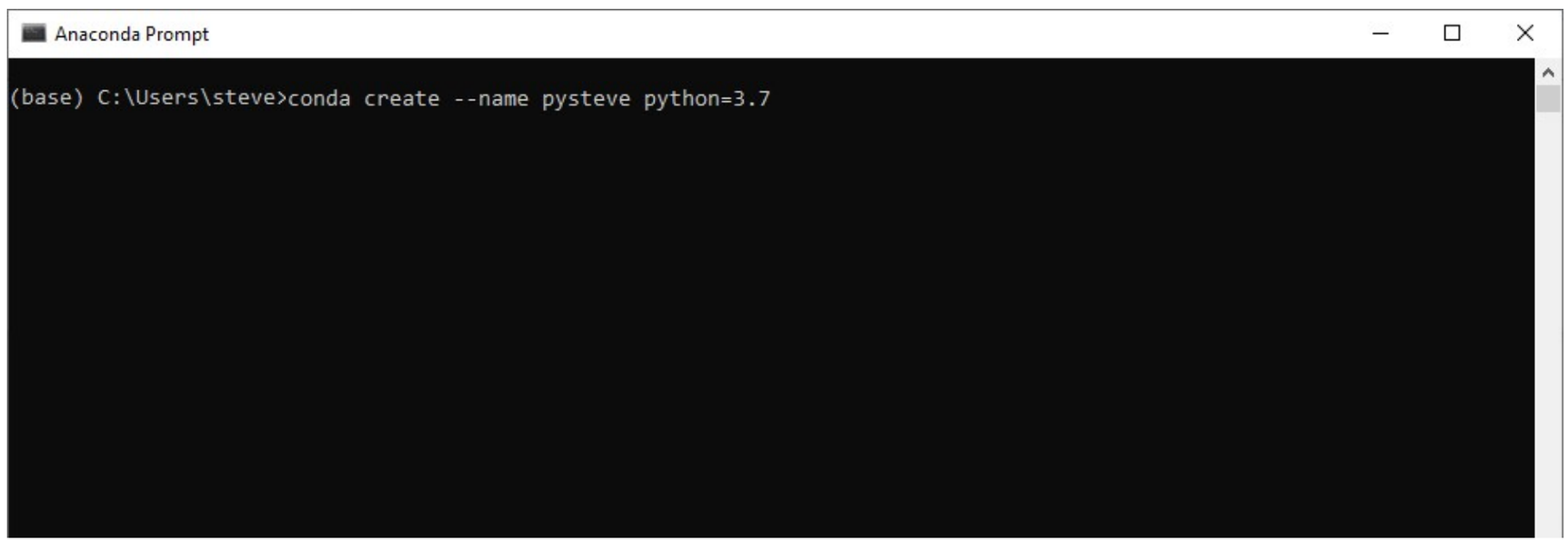
- Once installation is complete, open an Anaconda Prompt
- For example, in Windows search for Anaconda Prompt



Installation

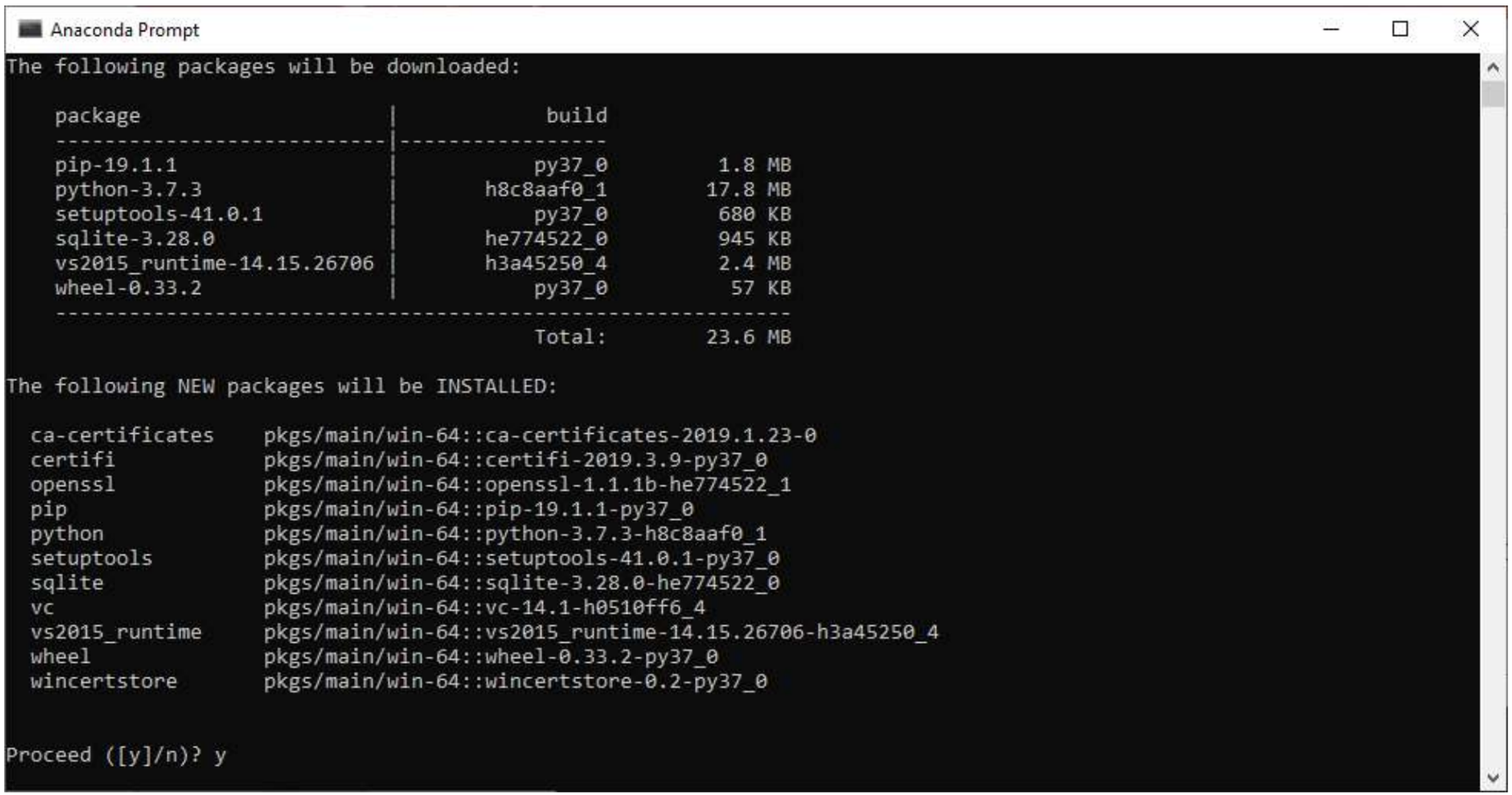
Depending on installation, confirm version, e.g. python=3.x

- Type: conda create --name <name here> python=3.7
- <name here> is the virtual environment you are creating
- For example: conda create --name pysteve python=3.7



Installation

- Respond yes by typing the letter y when asked to proceed



Installation

- Each time an Anaconda Prompt is opened, the virtual environment must be activated
- To activate, type: activate <name here>
- This example: activate pysteve (Mac users source activate pysteve)

Installation

- Install required packages

matplotlib

https://matplotlib.org/

OpenCV

https://opencv.org/

NumPy

https://www.numpy.org/

https://github.com/jrosebr1/imutils

Installation

- Install desired packages
- For each package, type: conda install <name here> or pip install <name here>
- For example: conda install numpy or pip install imutils

- For OpenCV: pip install opencv-python

Installation

- Confirm packages have been installed
- If environment is not yet activated, type: activate <name here>
- Type: conda list
- Lists all packages installed in the <name here> environment

Installation

- Confirm packages function properly
- If environment is not yet activated, type: activate <name here>
- Open Python by typing: python
- Import each package
- For example, typing: import numpy and hit enter
- Packages imported properly if no errors are thrown by Python
- Exit Python by typing: exit()

References

- *Anaconda*
  - https://www.anaconda.com
- *Installing Python via Anaconda*
  - https://www.youtube.com/watch?v=6iI4VqAtkUg&list=PLekqOMAzgrTQK6XTwWWuIo3W9LR4XwIT5&index=1
- *Installing Python via Anaconda: Sanity Check*
  - https://www.youtube.com/watch?v=MGrY49b7y90&list=PLekqOMAzgrTQK6XTwWWuIo3W9LR4XwIT5&index=2