

# Python Package Installation

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## For *Computational Linguistics (2017-Fall)*

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This document shows you how to install Python packages through `pip`. Since `numpy` and `json` are required for Practical 6 (however, `json` is already included in Python by default), this instruction will use the installation of `numpy` as an example.

Fortunately, starting with Python 3.4, `pip` is included by default with the Python binary installers. So you don't need to install `pip` anymore. Just type `pip3` in your terminal (for Mac) or `pip` in your cmd window (for Windows). If the `pip` usage information message is displayed, you can move on to the next step. If not, you may need to install `pip` first (check online how to do this – or come to me if you cannot figure out how).

## Upgrade Pip

### For Mac

Open a terminal window, and then run the following commands:

```
pip3 install --upgrade pip
```

### For Windows

Open a command window (right click cmd.exe and choose "Run as Administrator"), and then run the following commands:

```
python -m pip install --upgrade pip
```

## Install Numpy

Once you have `pip` properly installed in your computer, installing Python packages becomes super easy!

## For Mac

Open a terminal window, and then run the following commands:

```
pip3 install numpy
```

## For Windows

Open a command prompt (right click cmd.exe and choose "Run as Administrator"), and then run the following commands:

```
pip install numpy
```

As you may have noticed, it's exactly how we installed `nltk` at the beginning of this course! `nltk` and `numpy` are what we call 'modules' or 'packages' in Python (things we would usually `import` at the top of Python scripts), and most commonly used packages can be installed this way. You may want to import more modules for Practical 6. Finally, good luck with your homework!