Python and NLTK Installation

For *Computational Linguistics (2017-Fall)*

YE Yuxiao (yeyuxiao@outlook.com)

> Beautiful is better than ugly.
> Explicit is better than implicit.
> Simple is better than complex.
> Complex is better than complicated.
> Flat is better than nested.
> Sparse is better than dense.
> Readability counts.
> Special cases aren't special enough to break the rules.
> Although practicality beats purity.
> Errors should never pass silently.
> Unless explicitly silenced.
> In the face of ambiguity, refuse the temptation to guess.
> There should be one-- and preferably only one --obvious way to do it.
> Although that way may not be obvious at first unless you're Dutch.
> Now is better than never.
> Although never is often better than *right* now.
> If the implementation is hard to explain, it's a bad idea.
> If the implementation is easy to explain, it may be a good idea.
> Namespaces are one honking great idea -- let's do more of those!
> *-- Tim Peters, The Zen of Python*

This document shows you how to install Python and the Natural Language Toolkit (NLTK) in your personal computers. Both Windows and Mac are supported. For Linux users, please contact your teaching assistant should you have any problems in installation.

Specifically, we will use Python 3.x throughout this course. So please make sure you have installed the right version (Python 3.x) and use it for all coursework.

Install Python

For Mac

Python 2.x is installed in all Macbooks by default. You still need to install Python 3.x for this course.

1. Download the file by clicking on the link: `https://www.python.org/ftp/python/3.5.3/python-3.5.3-macosx10.6.pkg`. It should download automatically.

2. Open (double click) the .pkg file you have just downloaded. Simply follow the installation instructions.

3. Once Python is installed, you can use it either in an IDE (Integrated Development Environment) or in the terminal. It is strongly recommended to run Python in an IDE because it is easier to save the script you have written there. There are many handy IDEs for Python (e.g., PyCharm). To keep things simple, we will only use IDLE which is an IDE installed along with Python. You can find it in `Launchpad/Python/IDLE` or `/Applications/Python3.x/IDLE`. Open it, and run the following command (press Enter to run): `print('Hello world.')`. To run Python in the terminal, just open a terminal window, and run the `python3` command (if you just run `python`, Python 2.x will be used by default).

For Windows

You should install the 32-bit version of Python on Windows because the NLTK package we are going to install later is only supported by the 32-bit version.

1. Download the file for the 32-bit version: `https://www.python.org/ftp/python/3.5.3/python-3.5.3.exe`. It should download automatically.

2. Open (double click) the .exe file you have just downloaded. It is strongly recommended to tick the option `"Add Python 3.5 to PATH"` and choose `"Install now,"` as shown in Figure 1.

3. Once Python is installed, you can use it either in an IDE (Integrated Development Environment) or in the Windows command line. It is strongly recommended to run Python in an IDE because it is easier to save the script you have written there. There are many handy IDEs for Python (e.g., PyCharm). To keep things simple, we will only use idle which is installed along with Python. You can find it in `C:/Users/<yourusername>/AppData/Local/Programs/Python/Python35-32/Lib/idlelib/idle.pyw` (you may want

Figure 1: Install Python on Windows

to create a shortcut for it on Desktop). Open it, and run the following command (press Enter to run): `print('Hello world.')`. To run Python in the Windows command line, just open a Windows command prompt, and run the `python` command.

Install NLTK

For Mac

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

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

For Windows

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

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

If everything goes well, you can now run the command `import nltk` in IDLE/idle. If no errors are raised, you have now installed Python and NLTK successfully (Yaaaaah!). However, if anything goes wrong, which is really common (welcome to the world of programmers!), please contact your teaching assistant.