

Setting up your Linux machine

All the needed dependencies for setting up your machine for these tutorials.

Overview of requirements

The installation will depend on your operating system, but overall, you will need:

- Python 2.x – there are plans to update/include Python 3.x
- git
- A C compiler
- pip
- virtualenv
- virtualenvwrapper

Installation

Python

Linux machines come with Python pre-installed. To check, open up the Terminal application, then type `python`:

```
bash $ python Python 2.7.3 (default, Aug 9 2012, 17:23:57) [GCC 4.7.1 20120720 (Red Hat 4.7.1-5)] on linux2 Type "help", "copyright", "credits" or "license" for more information. >>>
```

git

You will need to install git[12] either from commands below or through their download page[13]. You can then follow the Save your Progress[14] page to set it up.

- Fedora: `sudo yum git`
- Ubuntu: `sudo apt-get install git`

C Compiler

A C compiler, either GCC or clang, is needed because the numpy library we are using has some C extensions, which will need to be compiled.

To test if you have either GCC or clang, type `$ gcc` or `$ clang` into your terminal. If you get an error that says “command not found” then follow the install instructions:

- Fedora:
 - `sudo yum groupinstall "Developer Tools"`
 - `sudo yum install python-devel`
- Ubuntu:
 - you may need to run `sudo apt-get update` first.
 - `sudo apt-get install build-essential python-dev`

This gives you the GCC[15] or the GNU Compiler Collection. To test installation, within the Terminal application, type `gcc` and you should get something like the following:

```
bash $ gcc gcc: fatal error: no input files compilation terminated.
```

pip

`pip`[16], stands for “python install python”, is a tool for installing and managing Python packages. Within your Terminal application, use the following commands (ignore the leading `$` as that is your terminal prompt) for downloading & installing. It may prompt you for your computer login password.

```
bash $ curl https://raw.githubusercontent.com/pypa/pip/master/contrib/get-pip.py | sudo
python $ pip Usage: pip COMMAND [OPTIONS] You must give a command (use "pip help" to
see a list of commands) $ sudo pip install --upgrade setuptools
```

virtualenv & virtualenvwrapper

`virtualenv`[17] creates isolated environments for each of your Python projects. It helps to solve version & dependency problems with multiple Python installations and/or multiple versions of different Python packages. We’ll use `pip` to install it:

```
bash $ sudo pip install virtualenv
```

`virtualenvwrapper`[18] is a great (but not required) tool for using `virtualenv` by simplifying the commands that `virtualenv` needs. We’ll use `pip` again to install it:

```
bash $ sudo pip install virtualenvwrapper $ export WORKON_HOME=~/.Envs $ mkdir -p
$WORKON_HOME $ source /usr/local/bin/virtualenvwrapper.sh
```

Text Editor

If you already have a text editor that you like to use, great!

If not, I would suggest grabbing `Sublime Text 2`[19]. It’s free, and very user-friendly, especially for the beginner.

Now continue on to “Test your setup”.

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