

## Software specifications

Chapter number	Software required (With version)	Free/Proprietary	If proprietary, can code testing be performed using a trial version	If proprietary, then cost of the software	Download links to the software	Hardware specifications	OS required
1	NumPy 1.9.2	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
1	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All
1	Matplotlib 1.4.3	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All
1	IPython 3.2.1	Free			<a href="http://ipython.org/install.html">http://ipython.org/install.html</a>		All
1	VirtualBox 4.3.28-100309	Free			<a href="https://www.virtualbox.org/wiki/Downloads">https://www.virtualbox.org/wiki/Downloads</a>		
1	Vagrant 1.7.2	Free			<a href="https://www.vagrantup.com/downloads.html">https://www.vagrantup.com/downloads.html</a>		
1	Docker 1.7.0	Free			<a href="https://docs.docker.com/index.html">https://docs.docker.com/index.html</a>		
1	watermark 1.2.2	Free			<a href="https://raw.githubusercontent.com/rasbt/watermark/master/watermark.py">https://raw.githubusercontent.com/rasbt/watermark/master/watermark.py</a>		
1	AppDirs 1.4.0	Free			<a href="https://pypi.python.org/pypi/appdirs/1.4.0">https://pypi.python.org/pypi/appdirs/1.4.0</a>		
1	pandas	Free			<a href="http://pandas.pydata.org/pandas-">http://pandas.pydata.org/pandas-</a>		

	0.16.2				<a href="#">docs/dev/install.html</a>		
1	scikit-learn 0.16.1	Free			<a href="http://scikit-learn.org/dev/install.html">http://scikit-learn.org/dev/install.html</a>		
1	pep8 1.6.2	Free			<a href="https://pep8.readthedocs.org/en/latest/intro.html">https://pep8.readthedocs.org/en/latest/intro.html</a>		
1	tabulate 0.7.5	Free			<a href="https://pypi.python.org/pypi/tabulate">https://pypi.python.org/pypi/tabulate</a>		
1	landslide 1.1.3	Free			<a href="https://pypi.python.org/pypi/landslide">https://pypi.python.org/pypi/landslide</a>		
2	NumPy 1.9.2	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
2	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All
2	Matplotlib 1.4.3	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All
3	NumPy 1.9.2	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
3	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All
3	Matplotlib 1.4.3	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All
4	NumPy 1.9.2	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
4	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All
4	Matplotlib 1.4.3	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All
5	NumPy 1.9.2	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
5	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All
5	Matplotlib 1.4.3	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All

6	NumPy 1.9.2	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
6	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All
6	Matplotlib 1.4.3	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All
7	NumPy 1.9.2	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
7	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All
7	Matplotlib 1.4.3	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All
8	NumPy 1.9.2	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
8	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All
8	Matplotlib 1.4.3	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All
9	NumPy 1.9.2	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
9	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All
9	Matplotlib 1.4.3	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All
10	NumPy 1.10.1	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
10	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All
10	Matplotlib 1.5.0	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All
11	NumPy 1.10.1	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
11	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All

11	Matplotlib 1.5.0	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All
12	NumPy 1.10.1	Free			<a href="http://sourceforge.net/projects/numpy/files/">http://sourceforge.net/projects/numpy/files/</a>		All
12	SciPy 0.16.0	Free			<a href="http://sourceforge.net/projects/scipy/files/">http://sourceforge.net/projects/scipy/files/</a>		All
12	Matplotlib 1.5.0	Free			<a href="http://sourceforge.net/projects/matplotlib/files/">http://sourceforge.net/projects/matplotlib/files/</a>		All

## Detailed installation steps (software-wise)

The steps should be listed in a way that it prepares the system environment to be able to test the codes of the book.

For all chapters Python 3 is required, as well as pip. To install Python go to <https://wiki.python.org/moin/BeginnersGuide/Download> TO install pip go to <http://pip.readthedocs.org/en/latest/installing.html>. Instructions to install software are given throughout the chapters. Mostly we need to run in admin mode the following command:

```
pip install <some software>
```

First, you need a Python 3 distribution. I recommend the full Anaconda distribution (how to install Anaconda is explained in Chapter 1 in the **Setting up Anaconda recipe**) as it comes with the majority of the software we need. I tested the code with Python 3.4 and the following packages:

- joblib 0.8.4
- IPython 3.2.1
- NetworkX 1.9.1
- NLTK 3.0.2
- Numexpr 2.3.1
- pandas 0.16.2
- SciPy 0.16.0
- seaborn 0.6.0
- sqlalchemy 0.9.9

- statsmodels 0.6.1
- matplotlib 1.5.0
- NumPy 1.10.1
- scikit-learn 0.17
- dautil 0.0.1a29

For some recipes you need to install extra software, but this is explained whenever the software is required. The following script installs most of the software (it assumes Anaconda):

```
export PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:${PATH}
```

```
apt-get install -y libgfortran3
```

```
conda config --set always_yes True
```

```
conda install beautiful-soup bokeh=0.9.1 execnet=1.3.0 fastcache=1.0.2 \
```

```
    joblib=0.8.4 jsonschema ipython=3.2.1 lxml mpmath=0.19 \
```

```
    networkx=1.9.1 nltk=3.0.2 numba=0.22.1 numexpr=2.3.1 \
```

```
    pandas=0.16.2 pyzmq scipy=0.16.0 seaborn=0.6.0 \
```

```
    sqlalchemy=0.9.9 statsmodels=0.6.1 terminado=0.5 tornado
```

```
conda install matplotlib=1.5.0 numpy=1.10.1 scikit-learn=0.17
```

```
pip install dautil==0.0.1a29
```

```
pip install hiveplot==0.1.7.4
```

```
pip install landslide==1.1.3
```

```
pip install LiveStats==1.0
```

```
pip install mpld3==0.2
```

```
pip install pep8==1.6.2
```

```
pip install requests-cache==0.4.10
```

```
pip install tabulate==0.7.5
```

```
find /opt/conda -name __pycache__ -depth -exec rm -rf {} \;
```

```
rm -r /opt/conda/pkgs/*
```

```
mkdir -p /.cache/dautil/log
```

```
mkdir -p /.local/share/dautil
```