

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	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
2	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
3	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
4	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
5	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
6	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX

7	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
8	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
9	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
10	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
11	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn, pystan, hmmlearn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
12	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
13	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
14	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
15	Python 3+, scikit-	Free			pip/conda	Intel i5+, 16	Windows,

	learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn					GB RAM	Linux, Mac OSX
16	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn, XGBoost	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
18	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn, Tensorflow 2	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
19	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn, Tensorflow 2	Free			pip/conda	Intel i5+, 16 GB RAM, NVIDIA GPU (optional)	Windows, Linux, Mac OSX
20	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn, Tensorflow 2	Free			pip/conda	Intel i5+, 16 GB RAM, NVIDIA GPU (optional)	Windows, Linux, Mac OSX
21	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn, Tensorflow 2	Free			pip/conda	Intel i5+, 16 GB RAM, NVIDIA GPU (optional)	Windows, Linux, Mac OSX
22	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn, Tensorflow 2	Free			pip/conda	Intel i5+, 16 GB RAM, NVIDIA GPU (optional)	Windows, Linux, Mac OSX
23	Python 3+, scikit-learn 0.22+, deep-	Free			pip/conda	Intel i5+, 16 GB RAM,	Windows, Linux, Mac

	belief-network					NVIDIA GPU (optional)	OSX
24	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn	Free			pip/conda	Intel i5+, 16 GB RAM	Windows, Linux, Mac OSX
25	Python 3+, scikit-learn 0.22+, Numpy 1.17+, Matplotlib, Seaborn, Tensorflow 2, OpenAI Gym	Free			pip/conda	Intel i5+, 16 GB RAM, NVIDIA GPU (optional)	Windows, Linux, Mac OSX

Detailed installation steps (software-wise)

All the code in the book is based on Python 3+. I suggest to install the last Anaconda free version (<https://www.anaconda.com/distribution/>), which already contains the majority of required packages (including scikit-learn, Numpy, and pandas). Anaconda is freely available for Windows, Linux and Mac OSX. It also includes Jupyter, which is the best tool to experiment the algorithm presented in the book.

Tensorflow 2 (<https://www.tensorflow.org/install>) can be installed using the standard pip command. In order to use the GPU, it's also required to install the NVIDIA CUDA package as explained in the official documentation.

PyStan (<https://pystan.readthedocs.io/en/latest/>) can be installed the standard pip command. As the software requires a complete C/C++ build chain, it's advisable to use Anaconda, which already contains all required dependencies.

OpenAI Gym (<http://gym.openai.com/docs/>) is can be installed using the standard pip command.

All the packages presented in the book are always provided with the corresponding URLs where the reader can find additional installation instructions.