Software specifications

Chapter number	Software required	Free/ Proprietary	Download links to the software	Hardware specifications	OS required
1-8	Conda	Free	https://www.anaconda.com/products/individual	NVIDIA RTX 2070 GPU	Windows, Linux and macOS
	pip		https://pip.pypa.io/en/stable/installing/		
	TensorFlow		https://www.tensorflow.org/install/gpu		
	Jupyter notebook		https://jupyter.org/install		
	Pandas		https://pandas.pydata.org/		
	NumPy		https://numpy.org/install/		

Installation steps

The common steps to setup the conda environment are explained below.

- **Step 1**: Create a new `conda` environment with Python 3.7.5:

```
$ conda create -n tf24nlp python==3.7.5
```

The environment is named `tf24nlp` but feel free to use your own name and make sure you use that in the following steps. I like to prefix my environment names with the version of TensorFlow being used and I suffix a "g" if that environment has a GPU version of the library. As you can probably infer, we are going to use TensorFlow 2.4.

- **Step 2**: Activate the environment and install the following packages:

```
$ conda activate tf24nlp
(tf24nlp) $  conda install pandas==1.0.1 numpy==1.18.1
```

This installs the NumPy and pandas libraries in our newly created environment.

- **Step 3**: Install TensorFlow 2.4. To do this, we will need to use `pip`. As of the time of writing, the `conda` distribution of TensorFlow was still at 2.0. TF has been moving quite fast. In general, `conda` distributions are a little behind the latest versions available:

```
(tf24nlp) $ pip install tensorflow==2.4
```

Please note that these instructions are for the CPU version of TensorFlow. For GPU installation instructions, please refer to https://www.tensorflow.org/install/gpu.

- **Step 4**: Install Jupyter Notebook – feel free to install the latest version:

```
(tf24nlp) $ conda install Jupyter
```

The rest of the installation instructions are about specific libraries used in specific chapters. If you have trouble installing through Jupyter Notebook, you can install them from the command line.

Specific instructions for each of the chapters are given in the *Chapter 10, Installation and Setup Instructions for Code*.