

Install Keras in R

This document lists the steps and resources to install keras in R. Before installing the keras, you need to know:

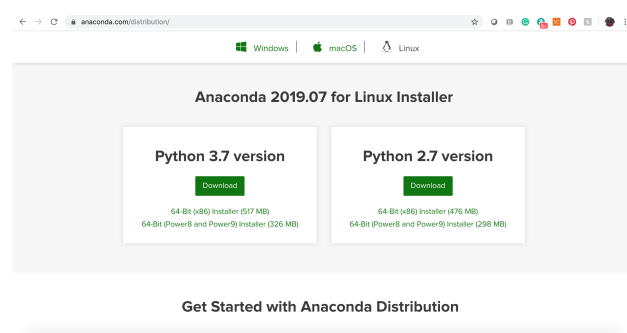
- Keras package was built within Tensorflow, and it is for training deep learning model.
- It is possible to install and run R/TensorFlow entirely from your own computer.
- Google provides TensorFlow for Windows, Mac and Linux.
- In order to run keras in R, you will need to install the latest version of Python.
- I recommend using the Anaconda release of Python.

Step 1: Install anaconda

Download Anaconda from the following URL:

<https://www.anaconda.com/python-3-7-package-build-out-miniconda-release/>

You can download either python 2.7 or python 3.7.



If you have an older version of anaconda release of python, you can update your python with the following command in the terminal window:

```
conda install python=3.7 anaconda=custom
```

Step 2: Install Jupyter notebooks

Once Anaconda has been downloaded, you can install Jupyter notebooks using the following command in the terminal window:

```
conda install jupyter
```

Step 3: Install other python packages

You can also install some useful python packages in the terminal window.

```
conda install scipy
pip install sklearn
pip install pandas
pip install matplotlib
pip install h5py
pip install tensorflow
pip install keras
```

Step 4: Check installation

You can check if you have correctly installed the Keras and Tensorflow by the following command in the terminal window

```
python
import tensorflow as tf
print(tf.VERSION)
import keras
keras.__version__

usc-securewireless-student-new13:~ huiyudeng$ Python
Python 3.7.4 (default, Aug 13 2019, 15:17:50)
[Clang 4.0.1 (tags/RELEASE_401/final)] :: Anaconda, Inc. on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> import tensorflow as tf
print(tf.VERSION)
import keras
keras.__version__

>>> print(tf.VERSION)
1.13.1
>>> import keras
Using TensorFlow backend.
>>> keras.__version__
'2.2.5'
```

Step 5: Install keras in R

Now, you will be able to install the keras package in R!

```
install.packages("Rcpp")
install.packages("devtools")
devtools::install_github("rstudio/reticulate", force=TRUE)
devtools::install_github("r-lib/processx")
devtools::install_github("rstudio/tensorflow")
devtools::install_github("rstudio/keras")
install_tensorflow(version="nightly")
```

Then, you can check if you have correctly installed the keras library in R by trying to load the mnist data from the keras package without any error messages.

```
library(tensorflow)
library(processx)
library(keras)
mnist<-dataset_mnist()
```