

# How to Install Keras

Keras is a high-level neural networks API, written in Python and capable of running on top of TensorFlow, CNTK, or Theano.

## 1. Dependencies:

Keras uses the following dependencies:

- Python
- Install one of its backend engines: TensorFlow, Theano, or CNTK.
  - When using the **TensorFlow** backend (**recommended**)  
See TensorFlow installation instructions (<https://www.tensorflow.org/install/>).
  - When using the **Theano** backend:  
See Theano installation instructions (<http://deeplearning.net/software/theano/install.html#install> )
  - When using the CNTK backend:  
See CNTK installation instructions (<https://docs.microsoft.com/en-us/cognitive-toolkit/setup-cntk-on-your-machine> )
- cuDNN (optional, required if you plan on running Keras on GPU).
- HDF5 and h5py (optional, required if you plan on saving Kears model to disk)

## 2. Install Keras:

- from PyPI (**recommended**):

```
sudo pip install keras
```

If you are using a virtualenv, you may want to avoid using sudo:

```
pip install keras
```

- from the GitHub source:

1. First, clone Keras using **git**:

```
git clone https://github.com/keras-team/keras.git
```

2. Then, **cd** to the Keras folder and run the install command:

```
cd keras
```

```
sudo python setup.py install
```

- ✓ You can find more information about Keras in <https://keras.io/>.