

CS-583 Deep Learning

Setup Python, Jupyter and Deep Learning Packages. You may use either TensorFlow, Keras or Pytorch:

1. Install Python 3.3 or later. Do not use Python 2.X.
2. Install Jupyter Notebook: [<https://jupyter.org/install>]
3. Install TensorFlow: [<https://www.tensorflow.org/install>]
4. Install Keras: [https://keras.io/getting_started/]
5. Keras Guide: [<http://keras.io/guides/>]
6. Install Pytorch: [<https://pytorch.org/>]

Google Colab [<https://colab.research.google.com/>]:

You may also use Google Colab for free GPU access to speed up the training of neural networks. It only requires a Google account. The interface is easy to use. It will avoid the requirement of installing an up-to-date python distribution, managing environments, and running notebooks on your local machines.

To access GPU, you can click on Edit at the top left of the interface, then Notebook Settings -> Hardware accelerator -> GPU.

To install additional packages, you can use: `!pip install *package-name`

Please note that you might lose your progress if you leave Colab idle for too long. It is always a good idea to save your intermediate results during training.

Read the Books:

1. Francois Chollet. Deep Learning with Python. Manning Publications Co., 2017. [Available Online]
2. S. Boyd and L. Vandenberghe. Introduction to Applied Linear Algebra. Cambridge University Press, 2018. [Available Online]