环境配置&预习资料

第一阶段

1. **Anaconda**

We will be using Anaconda with Python (version 2.7 recommended, but any version from 2.7 to 3.3 works fine). Install this and you will have Python along with several useful packages.
Steps to install Anaconda: link

2. **Pycharm (community version)**

Download: link
Install: link

第二阶段

1. **Anaconda，同上**
2. **Jupyter Notebook**

Jupyter Notebook will be our main tool for interactive environment. You can either start Jupyter Notebook from Anaconda GUI or from CLI. For example, on Linux and MacOS:

```
$ jupyter notebook
```

Jupyter Notebook will be launched on your browser.
Steps to install Jupyter Notebook: link

3. **TensorFlow**

TensorFlow is the main engine/backend for driving deep learning in DS-401.
Steps to install TensorFlow: link

TensorFlow Interactive Environment Codelab Setup

4. **Keras**

Keras is a high-level neural networks library, written in Python and capable of running on top of TensorFlow.
Steps to install Keras: link

5. **Alternative: Amazon EC2 Instances (for registered students only)**

We can share the ready-to-use image file (AMI) of Amazon EC2 Instance that has all these packages installed. In other words, students only need to launch an EC2 instance with our shared image, and the whole interactive environment for deep learning deployment is ready to use.

Also, Amazon offers EC2 instances running in free tiers, so you don't need to pay :)

More details about using AMI:

Choose 'US West (N. California)' as server location

Select t2.micro (for free tier)

Select t2.medium if want a faster platform (not free)

Step 3, 4 and 5: use default settings.

Step 6: Add a security group that opens these ports:

SSH, HTTP, HTTPs, and your own (in our demo: the port is 6101)

After launch the instance, "ssh" to the instance

How? Right click "connect" button of the instance in AWS and see details.

Then "sudo miniconda3/bin/jupyterhub"

In your browser, enter "IP:YOUR_PORT" to connect to the platform.

What's the IP? Right click "connect" button of the instance in AWS and see details.

UserID and password are: training01/DCYL

Enjoy!

感谢子祺、阿咪同学细心地为大家整理了AWS的配置步骤

BitTiger Mac AWS配置

BitTiger Windows配置

如果数学基础实在很弱的话，建议看：

1. https://www.khanacademy.org/math/precalculus/precalc-matrices 看到Properties of Matrix Multiplication即可
2. https://www.khanacademy.org/math/ap-calculus-ab/product-quotient-chain-rules-ab/chain-rule-ab/v/chain-rule-introduction

补充资料

1. **Python教程**

Google Python 基础
或是我们的电子书 Intro to Python Programming

2. **拓展阅读：**

Python 入门经典书籍
http://www.diveintopython.net/

Machine Learning is Fun:
https://medium.com/@ageitgey/machine-learning-is-fun-80ea3ec3c471#.en6d4atq9

Deep learning Book
http://www.deeplearningbook.org/

Scikit learn library Doc
http://scikit-learn.org/stable/