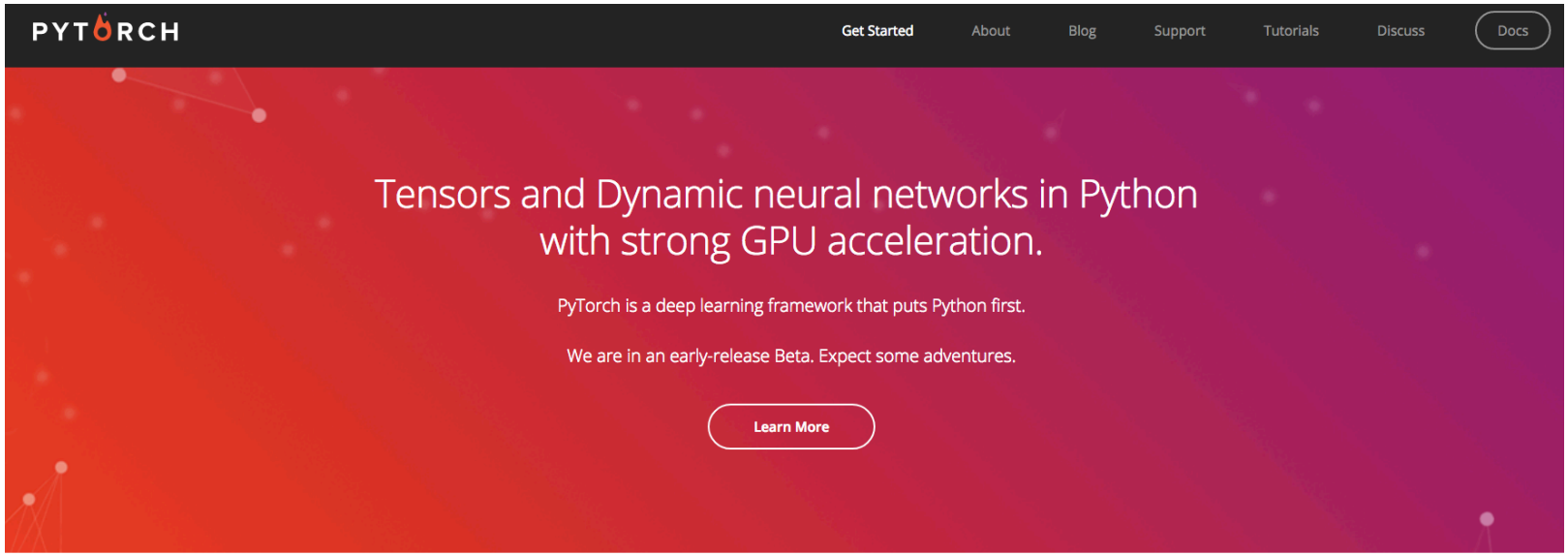
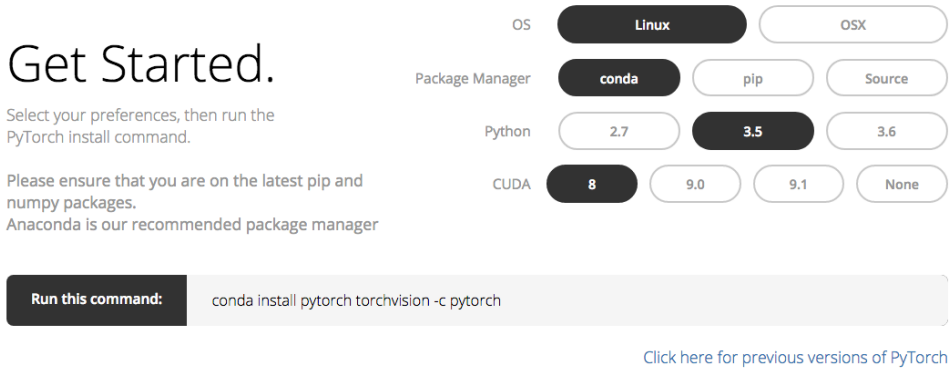
Install PyTorch

- Follow the instructions:http://pytorch.org/





Run PyTorch

- Interactive
- Non-interactive (Highly recommended on Cluster)
- Jupyter Notebook (Highly recommended on your own computer)

Run PyTorch - Interactive

- Interactive:

```
macbain:~ meiguang$ which python
/Users/meiguang/anaconda2/bin/python
macbain:~ meiguang$ python
Python 2.7.12 |Anaconda custom (x86_64)| (default, Jul  2 2016, 17:43:17)
[GCC 4.2.1 (Based on Apple Inc. build 5658) (LLVM build 2336.11.00)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
Anaconda is brought to you by Continuum Analytics.
Please check out: http://continuum.io/thanks and https://anaconda.org
>>> import torch
>>>
```

Run PyTorch – Non-interactive

- Non-interactive:
  - Create a ".py" file named "test.py"

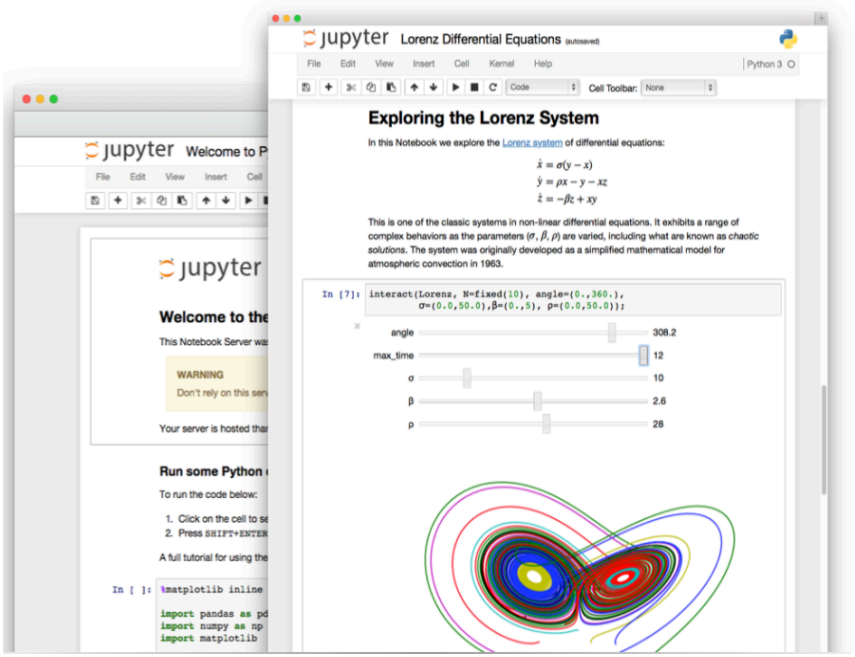
```python
import torch
# Create a tensor
x = torch.randn(5, 3)
# Print out the x
print(x)
```

  - Run "python test.py" in the terminal

```
macbain:tutorial01 meiguang$ python test.py

 0.4214 -0.7910 -2.2028
 1.0870 -0.4494 -0.4044
-0.7091  0.9993 -0.2408
-0.3165  1.4342  0.0584
 0.5433  0.5036 -0.3561
[torch.FloatTensor of size 5x3]
```

Install Jupyter Notebook



The Jupyter Notebook

The Jupyter Notebook is a web application that allows you to create and share documents that contain live code, equations, visualizations and explanatory text. Uses include: data cleaning and transformation, numerical simulation, statistical modeling, machine learning and much more.

- http://jupyter.org/install.html
- Prerequisite: Python
- Just need to install Anaconda which contains Python and Jupyter Notebook.
- After installation, run “jupyter notebook” in the terminal.

Run PyTorch - Jupyter Notebook

- Run PyTorch in Jupyter Notebook:

```
from __future__ import print_function
import torch
```

Construct a 5x3 matrix, uninitialized:

```
x = torch.Tensor(5, 3)
print(x)
```

```
1.00000e-31 *
  0.0000  0.0000  0.0000
  0.0000  2.2341  0.0000
  0.0001  0.0000  0.0000
  0.0000  0.0000  0.0000
  0.0000  0.0000  0.0001
[torch.FloatTensor of size 5x3]
```

Construct a randomly initialized matrix:

```
x = torch.rand(5, 3)
print(x)
```

```
 0.9008  0.1295  0.7405
 0.0922  0.3206  0.4564
 0.5803  0.7283  0.6102
 0.9511  0.0322  0.3803
 0.5215  0.3466  0.2081
[torch.FloatTensor of size 5x3]
```

Get its size:

```
print(x.size())
```

```
torch.Size([5, 3])
```

PyTorch Resources

- http://pytorch.org/tutorials/
- https://github.com/yunjey/pytorch-tutorial
- http://cs231n.stanford.edu/