**1. Introduction to Tensorflow**

**What is Tensorflow?**

“Open source software library for numerical computation using dataflow graphs.”

“Open source software library for Machine Intelligence”

**Why Tensorflow?**

Popular libraries: Theano/Torch/Tensorflow

Torch—written in Lua.

Tensorflow: simple & clearer.

* Python API
* Portable, Flexible.
* Visualization
* Checkpoints
* Auto-differentiation autodiff.
* Large community.

**Getting started**

1. TF Learn (Simplified interface)

Provides readily available models.

2. TF Slim

Simple API to simplify process

3. Others…

**Data Flow Graph**

TF does all of its computation in graphs

(1. Assemble Graph, 2. Use Sessions to execute operations)

Ex:

import Tensorflow as tf

x = 2, y = 3

op1 = tf.add(x,y)

with tf.Session() as sess:

sess.run(op1)