교 육 세 미 나

ToBig's 9기 박송은

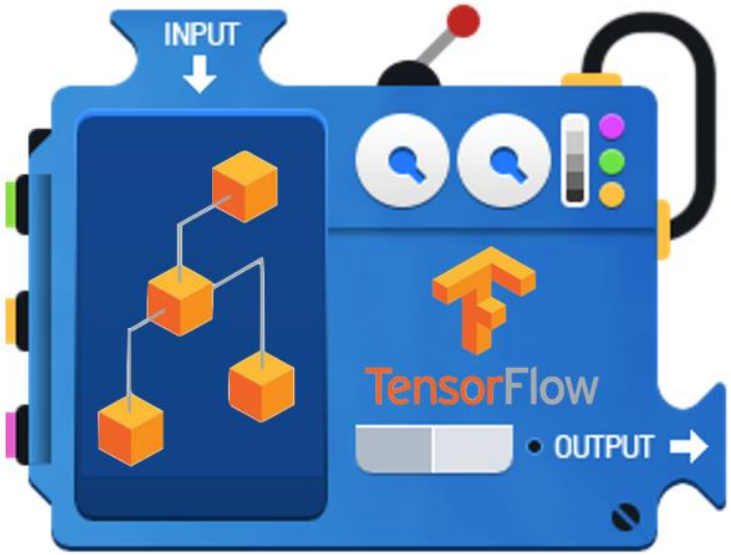
TensorFlow Tutorials

Installing TensorFlow

- Linux, Max OSX, Windows
  - (sudo -H) pip install --upgrade tensorflow
  - (sudo -H) pip install --upgrade tensorflow-gpu
- From source
  - bazel ...
  - https://www.tensorflow.org/install/install_sources
- Google search/Community help
  - https://www.facebook.com/groups/TensorFlowKR/

TensorFlow Mechanics

2 feed data and run graph (operation)
sess.run (op)



1 Build graph using
TensorFlow operations

3 update variables
in the graph
(and return values)

WWW.MATHWAREHOUSE.COM

Tensor Ranks, Shapes, and Types

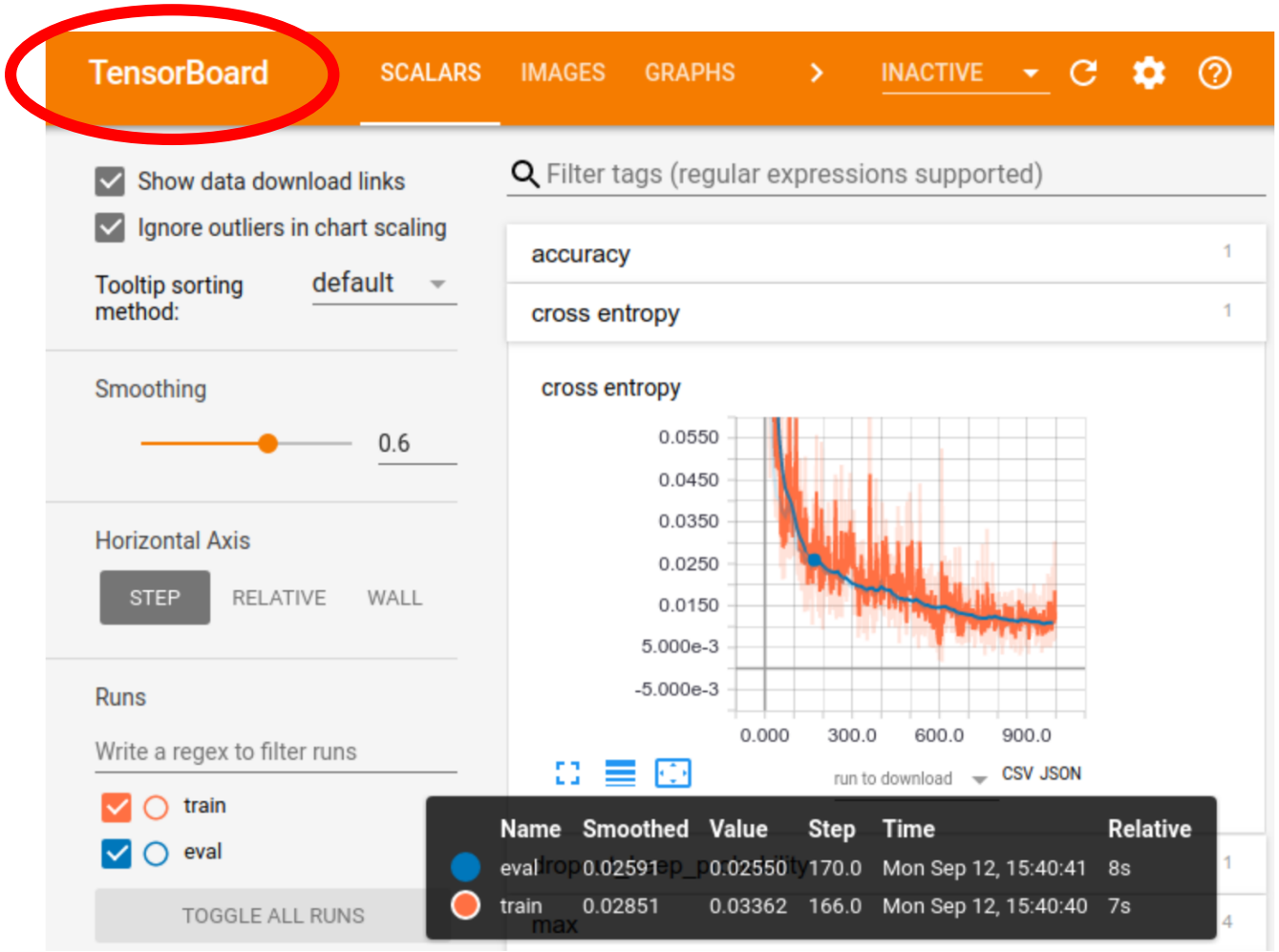
Rank	Math entity	Python example
0	Scalar (magnitude only)	`s = 483`
1	Vector (magnitude and direction)	`v = [1.1, 2.2, 3.3]`
2	Matrix (table of numbers)	`m = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]`
3	3-Tensor (cube of numbers)	`t = [[[2], [4], [6]], [[8], [10], [12]], [[14], [16], [18]]]`
n	n-Tensor (you get the idea)	`....`

Tensor Ranks, Shapes, and Types

Rank	Shape	Dimension number	Example
0	[]	0-D	A 0-D tensor. A scalar.
1	[D0]	1-D	A 1-D tensor with shape [5].
2	[D0, D1]	2-D	A 2-D tensor with shape [3, 4].
3	[D0, D1, D2]	3-D	A 3-D tensor with shape [1, 4, 3].
n	[D0, D1, ... Dn-1]	n-D	A tensor with shape [D0, D1, ... Dn-1].

Data type	Python type	Description
DT_FLOAT	tf.float32	32 bits floating point.
DT_DOUBLE	tf.float64	64 bits floating point.
DT_INT8	tf.int8	8 bits signed integer.
DT_INT16	tf.int16	16 bits signed integer.
DT_INT32	tf.int32	32 bits signed integer.
DT_INT64	tf.int64	64 bits signed integer.

Unit 01 | Tensorflow



Unit 01 | Tensorflow

1. From TF graph, decide which tensors you want to log

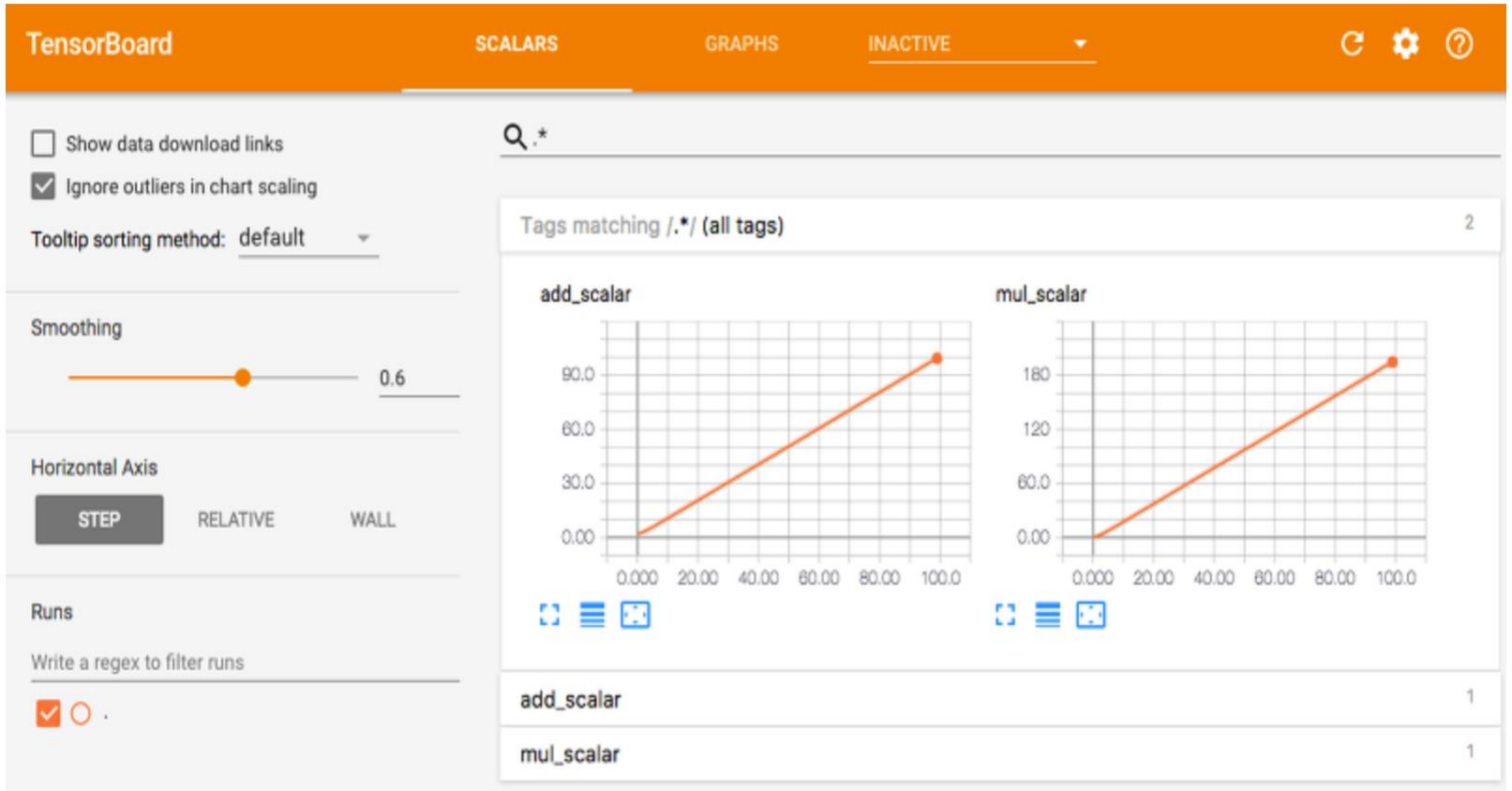
2. Merge all summaries

3. Create writer and add graph

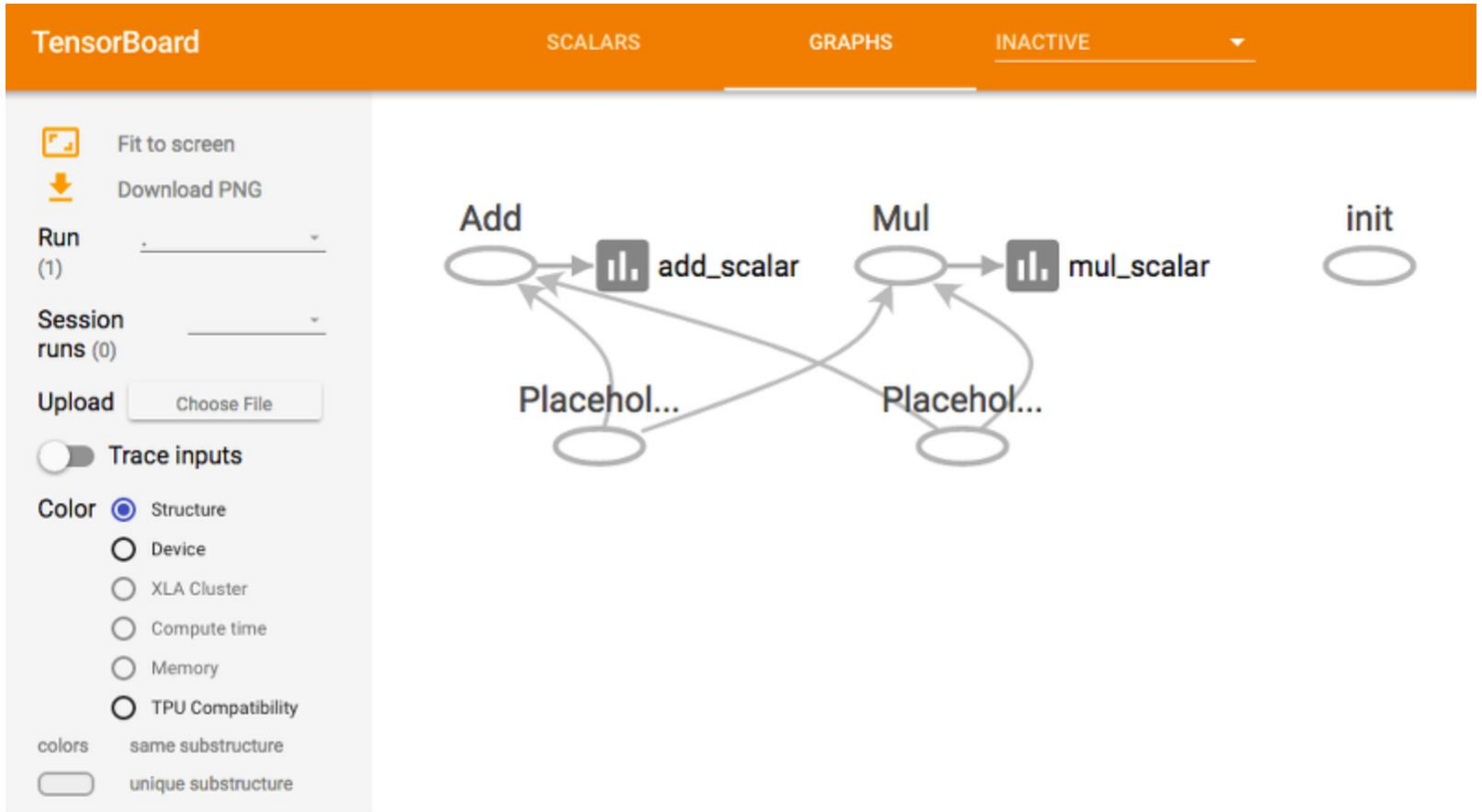
4. Run summary merge and add_summary

5. Launch Tensorboard

Unit 01 | Tensorflow



Unit 01 | Tensorflow



출처

https://docs.google.com/presentation/d/137IIT2N3AYcclqxNuc8j9RDrIeHiYkSZ5JPg_vg9Jqk/edit#slide=id.g1d115b0ec5_0_215

http://pythonkim.tistory.com/39

들어주셔서 감사합니다.