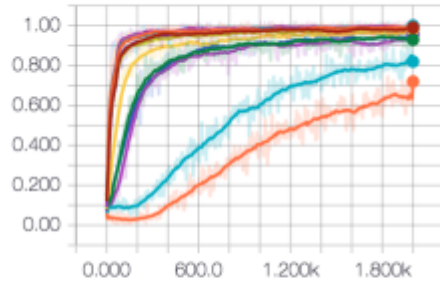


## Analysis of Different configurations of Neural Networks for MNIST Dataset using TensorFlow:

### Accuracy Graph:

accuracy

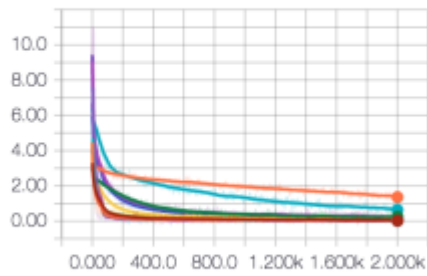
accuracy/accuracy



	Name	Smoothed	Value	Step	Time	Relative
xer	lr_1E-03conv1fc1	0.9900	0.9900	2.000k	Fri Apr 21, 19:00:30	4m 49s
	lr_1E-03conv1fc2	0.9900	0.9900	2.000k	Fri Apr 21, 18:48:37	10m 30s
x	lr_1E-03conv2fc1	1.000	1.000	2.000k	Fri Apr 21, 18:55:39	6m 59s
	lr_1E-03conv2fc2	1.000	1.000	2.000k	Fri Apr 21, 18:38:02	14m 1s
	lr_1E-04conv1fc1	0.9300	0.9300	2.000k	Fri Apr 21, 19:41:03	5m 3s
	lr_1E-04conv1fc2	0.9800	0.9800	2.000k	Fri Apr 21, 19:27:41	12m 39s
	lr_1E-04conv2fc1	0.9900	0.9900	2.000k	Fri Apr 21, 19:35:58	8m 11s
	lr_1E-04conv2fc2	0.9600	0.9600	2.000k	Fri Apr 21, 19:14:58	14m 25s
	lr_1E-05conv1fc1	0.7200	0.7200	2.000k	Fri Apr 21, 20:17:12	5m 5s
	lr_1E-05conv1fc2	0.8200	0.8200	2.000k	Fri Apr 21, 20:04:41	10m 31s
	lr_1E-05conv2fc1	0.9600	0.9600	2.000k	Fri Apr 21, 20:12:04	7m 20s
	lr_1E-05conv2fc2	0.9600	0.9600	2.000k	Fri Apr 21, 19:54:06	13m 0s

xent

xent/xent\_1

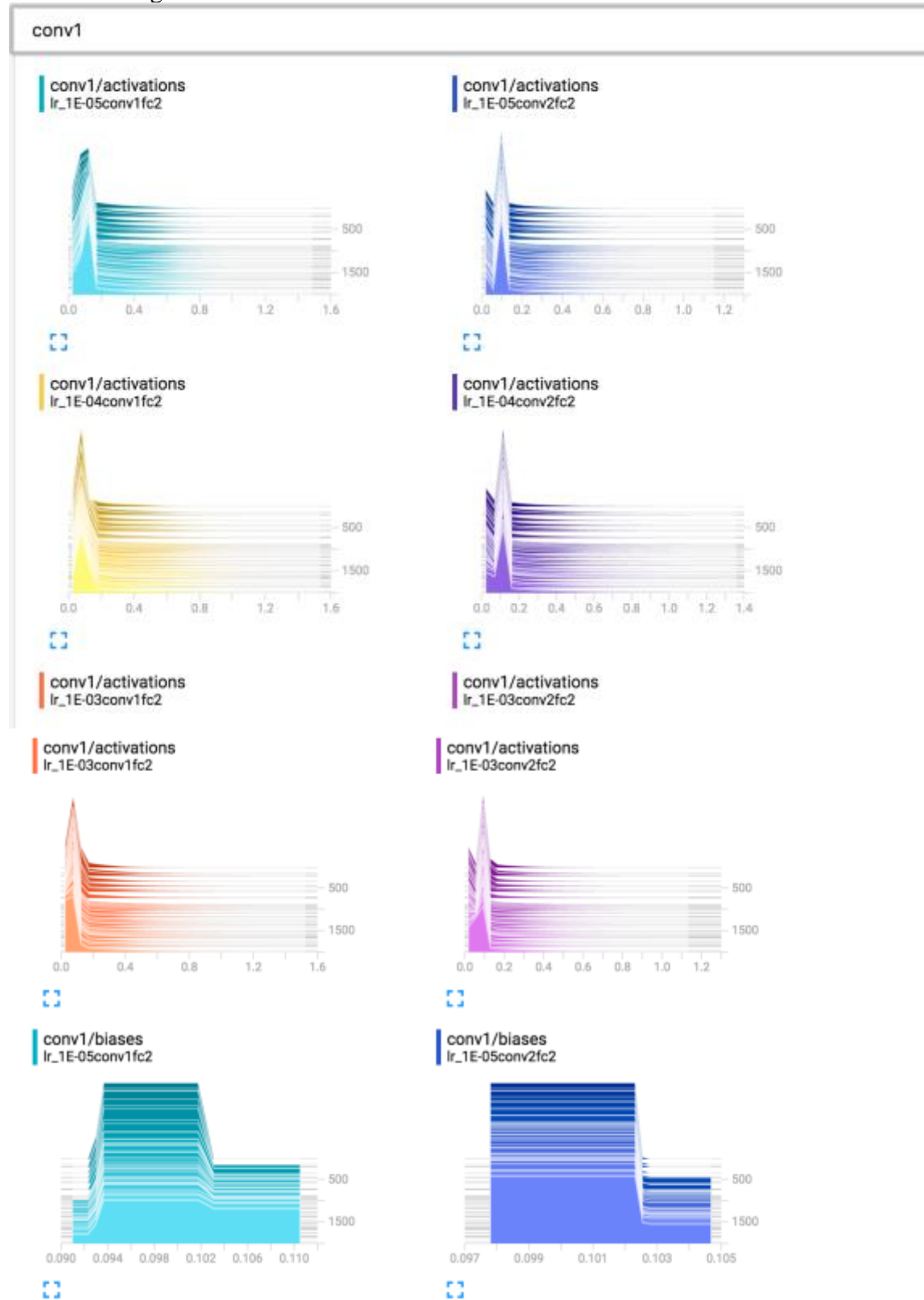


Name	Smoothed	Value	Step	Time	Relative
Lr_1E-03conv1fc1	0.02956	0.02956	2.000k	Fri Apr 21, 19:00:30	4m 49s
Lr_1E-03conv1fc2	0.01610	0.01610	2.000k	Fri Apr 21, 18:48:37	10m 30s
Lr_1E-03conv2fc1	8.8583e-3	8.8583e-3	2.000k	Fri Apr 21, 18:55:39	6m 59s
Lr_1E-03conv2fc2	6.0411e-3	6.0411e-3	2.000k	Fri Apr 21, 18:38:02	14m 1s
Lr_1E-04conv1fc1	0.2524	0.2524	2.000k	Fri Apr 21, 19:41:03	5m 3s
Lr_1E-04conv1fc2	0.06394	0.06394	2.000k	Fri Apr 21, 19:27:41	12m 39s
Lr_1E-04conv2fc1	0.04326	0.04326	2.000k	Fri Apr 21, 19:35:58	8m 11s
Lr_1E-04conv2fc2	0.08431	0.08431	2.000k	Fri Apr 21, 19:14:58	14m 25s
Lr_1E-05conv1fc1	1.365	1.365	2.000k	Fri Apr 21, 20:17:12	5m 5s
Lr_1E-05conv1fc2	0.6403	0.6403	2.000k	Fri Apr 21, 20:04:41	10m 31s
Lr_1E-05conv2fc1	0.1441	0.1441	2.000k	Fri Apr 21, 20:12:04	7m 20s
Lr_1E-05conv2fc2	0.1179	0.1179	2.000k	Fri Apr 21, 19:54:06	13m 0s

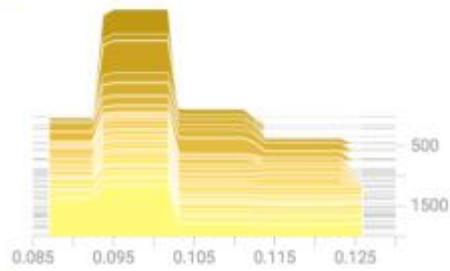
TABLE:

Model	Execution Time	Final Accuracy(smoothed)	Cross Entropy
Lr_1E-03conv1fc1	4m 49s	99%	0.2956
Lr_1E-03conv1fc2	10m 30s	99%	0.01610
Lr_1E-03conv2fc1	6m 59s	100%	8.8583e-3
Lr_1E-03conv2fc2	14m 1s	100%	6.0411e-3
Lr_1E-04conv1fc1	5m 3s	93%	0.2524
Lr_1E-04conv1fc2	12m 39s	98%	0.06394
Lr_1E-04conv2fc1	8m 11s	99%	0.04326
Lr_1E-04conv2fc2	14m 25s	96%	0.08431
Lr_1E-05conv1fc1	5m 5s	72%	1.365
Lr_1E-05conv1fc2	10m 31s	82%	0.6403
Lr_1E-05conv2fc1	7m 20s	96%	0.1441
Lr_1E-05conv2fc2	13m 0s	96%	0.1179

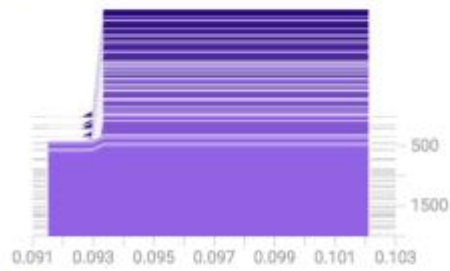
CONV1 histogram:



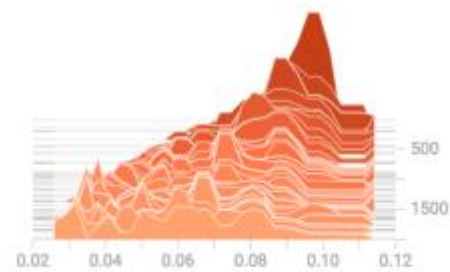
conv1/biases  
lr\_1E-04conv1fc2



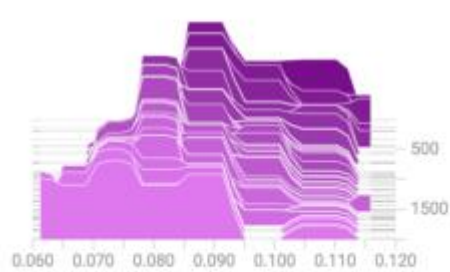
conv1/biases  
lr\_1E-04conv2fc2



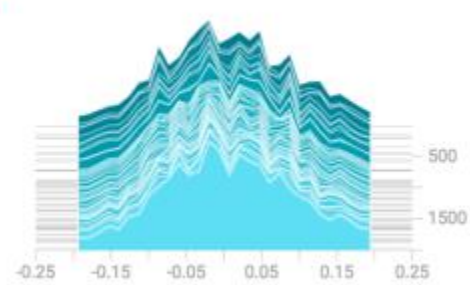
conv1/biases  
lr\_1E-03conv1fc2



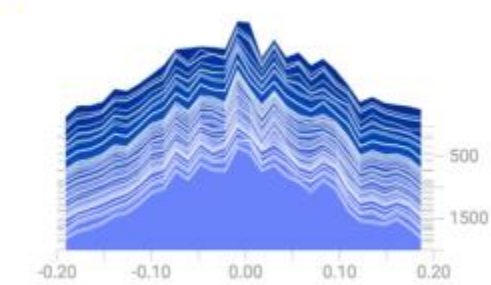
conv1/biases  
lr\_1E-03conv2fc2



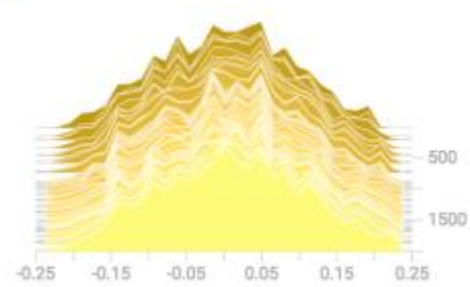
conv1/weights  
lr\_1E-05conv1fc2



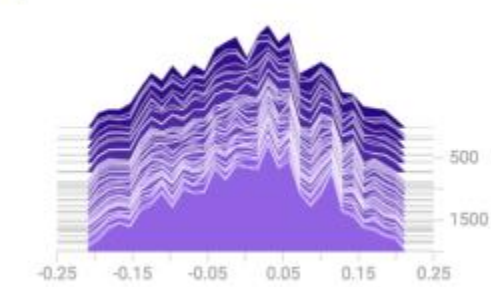
conv1/weights  
lr\_1E-05conv2fc2

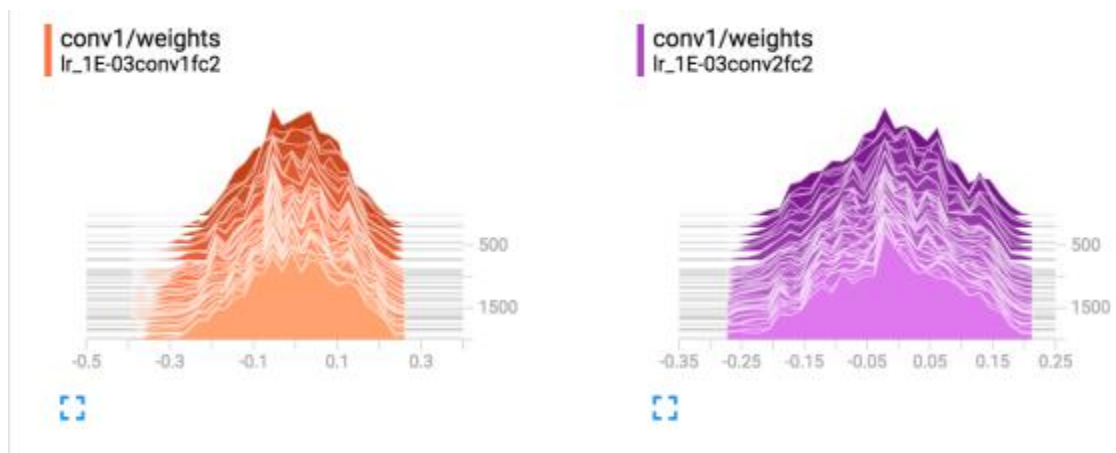


conv1/weights  
lr\_1E-04conv1fc2



conv1/weights  
lr\_1E-04conv2fc2





T-SNE:

