Report

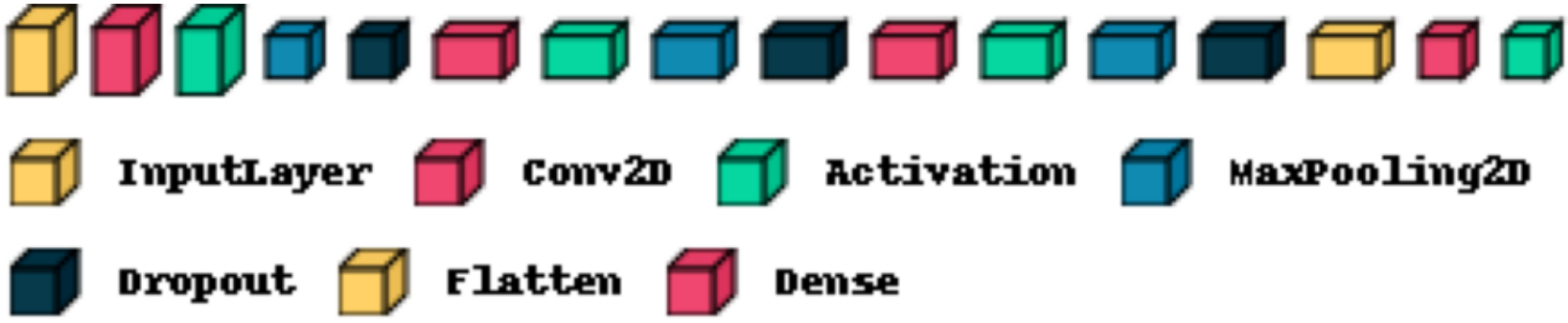
Keras

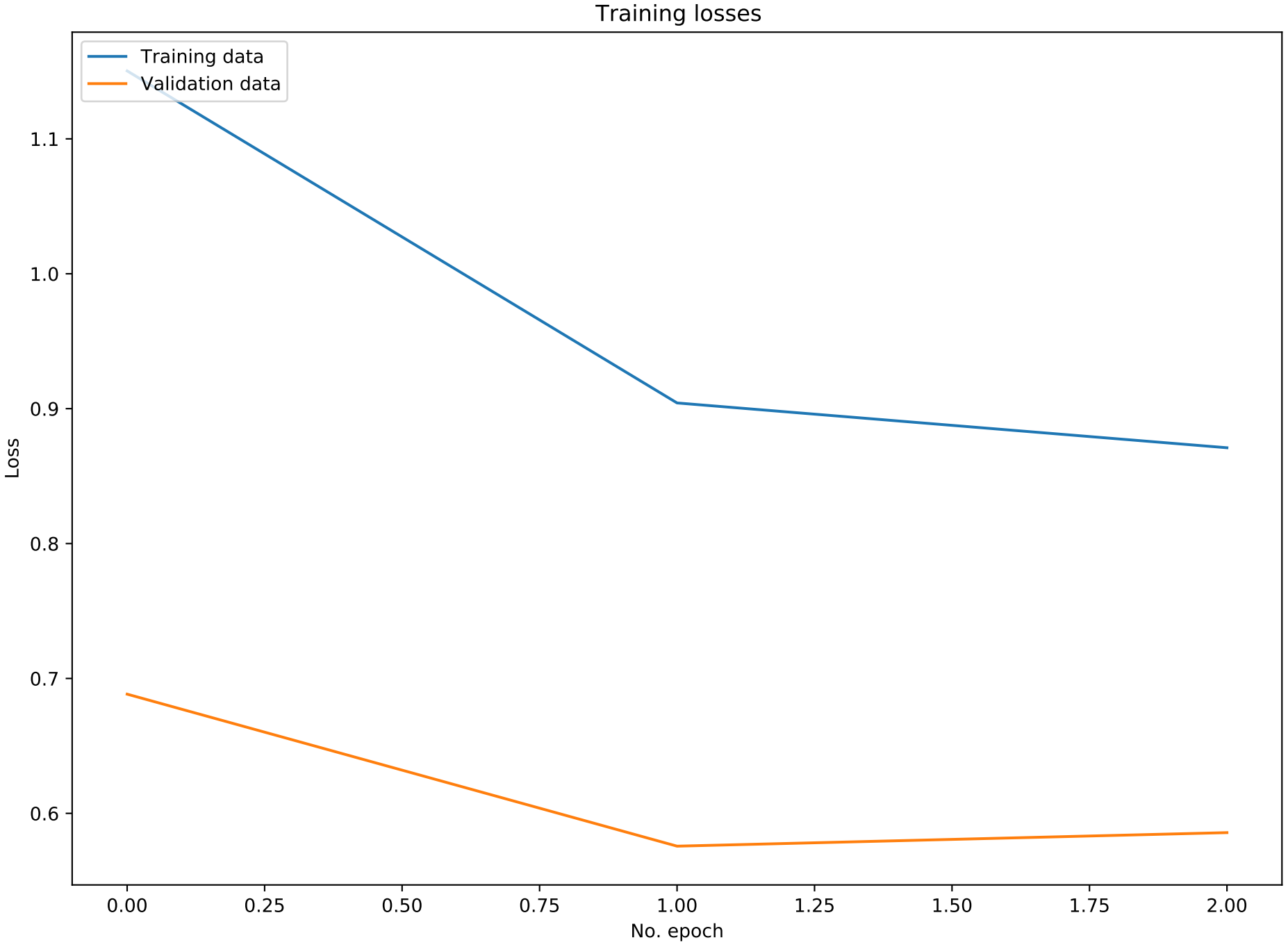
Model: "model"

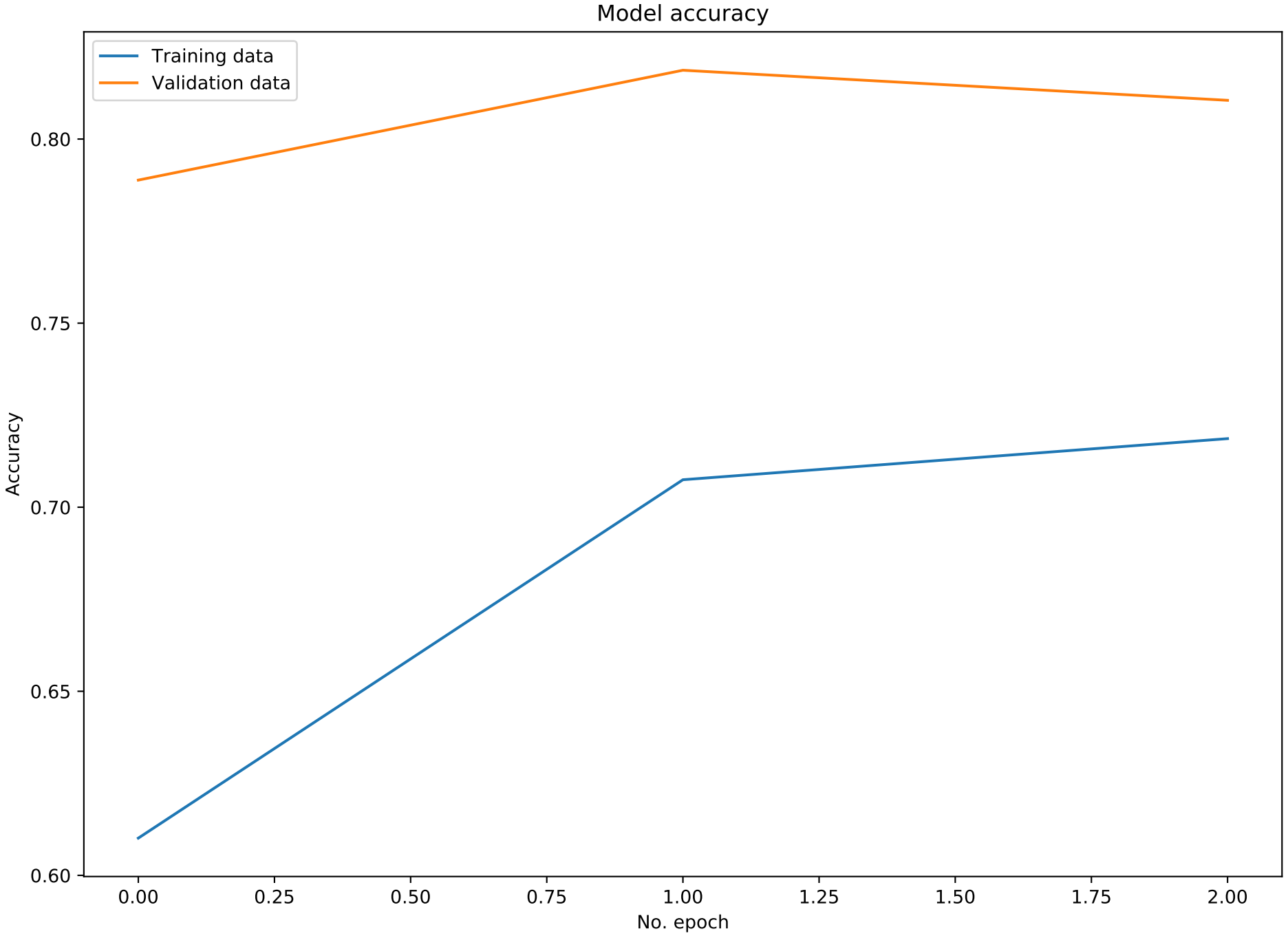
Layer (type)	Output Shape	Param #
input_1 (InputLayer)	[(None, 8, 8, 1)]	0
conv2d (Conv2D)	(None, 8, 8, 8)	80
activation (Activation)	(None, 8, 8, 8)	0
max_pooling2d (MaxPooling2D)	(None, 4, 4, 8)	0
dropout (Dropout)	(None, 4, 4, 8)	0
conv2d_1 (Conv2D)	(None, 4, 4, 16)	1168
activation_1 (Activation)	(None, 4, 4, 16)	0
max_pooling2d_1 (MaxPooling2D)	(None, 2, 2, 16)	0
dropout_1 (Dropout)	(None, 2, 2, 16)	0
conv2d_2 (Conv2D)	(None, 2, 2, 16)	2320
activation_2 (Activation)	(None, 2, 2, 16)	0
max_pooling2d_2 (MaxPooling2D)	(None, 1, 1, 16)	0
dropout_2 (Dropout)	(None, 1, 1, 16)	0
flatten (Flatten)	(None, 16)	0
dense (Dense)	(None, 10)	170
activation_3 (Activation)	(None, 10)	0

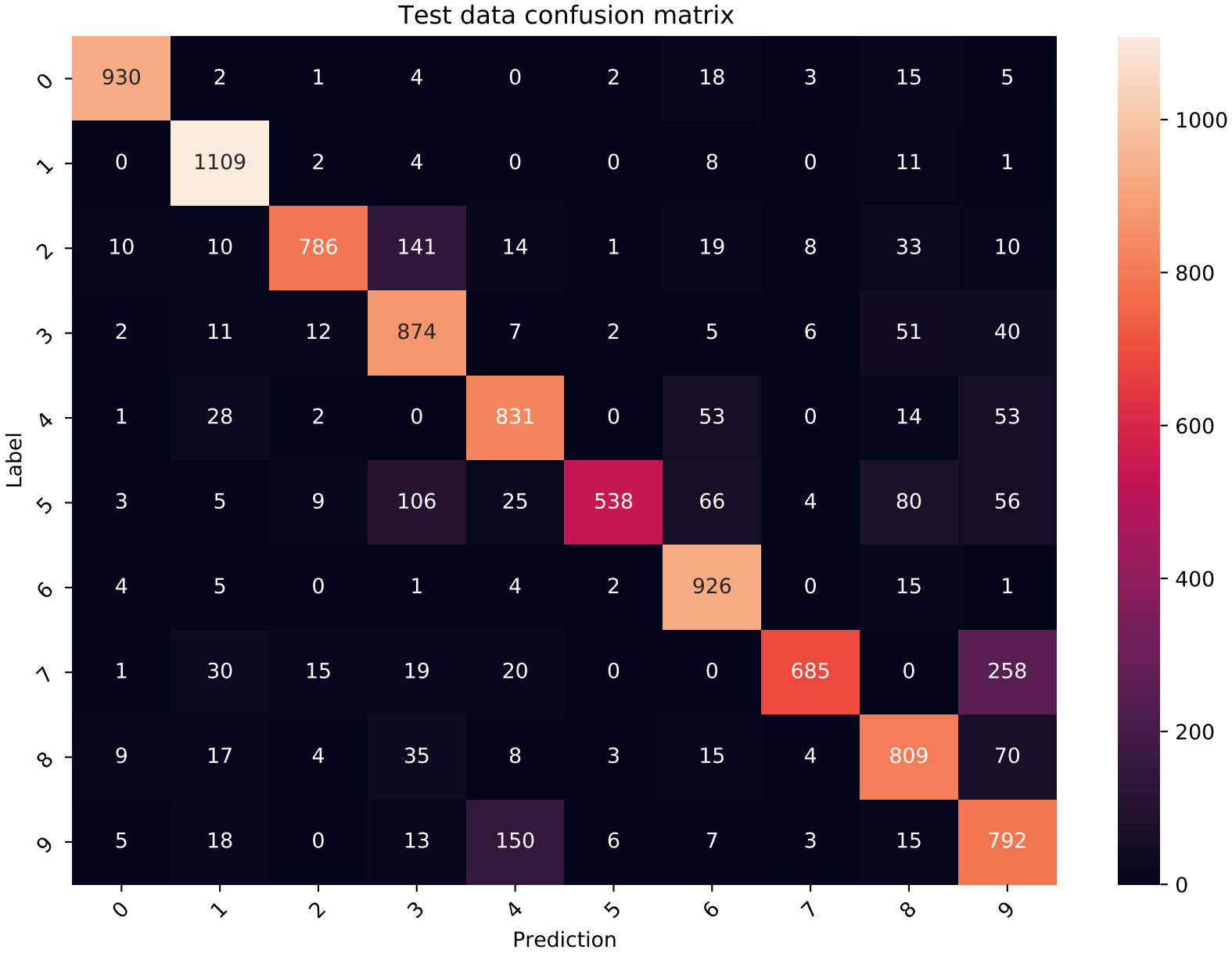
Total params: 3,738
Trainable params: 3,738
Non-trainable params: 0

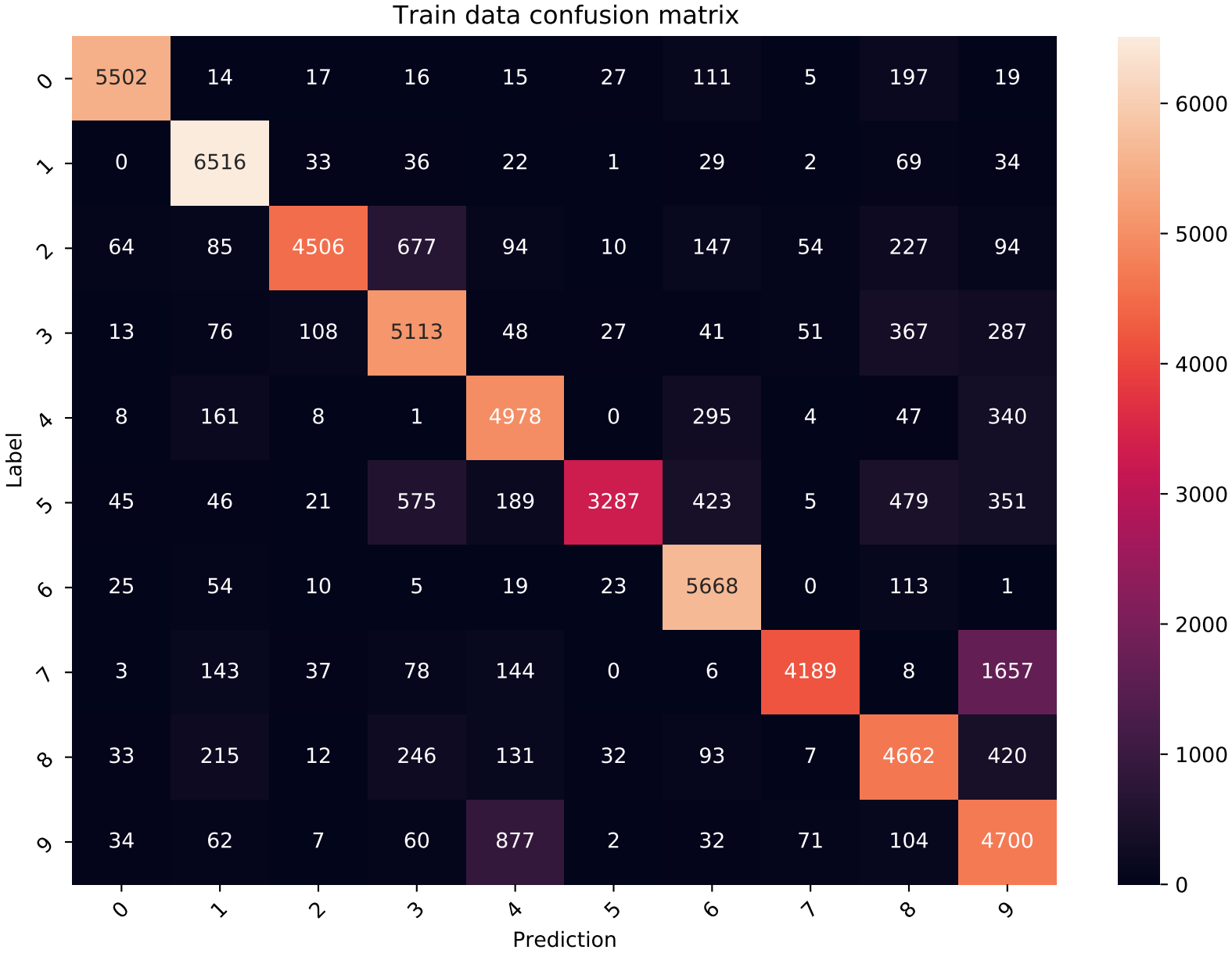
Model architecture




Training losses
Training data
Validation data
1.1
1.0
0.9
0.8
0.7
0.6
Loss
0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
2.00
No. epoch


Model accuracy
Training data
Validation data
0.80
0.75
0.70
0.65
0.60
Accuracy
0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
2.00
No. epoch


Test data confusion matrix
Label
Prediction
0 930 2 1 4 0 2 18 3 15 5
1 0 1109 2 4 0 0 8 0 11 1
2 10 10 786 141 14 1 19 8 33 10
3 2 11 12 874 7 2 5 6 51 40
4 1 28 2 0 831 0 53 0 14 53
5 3 5 9 106 25 538 66 4 80 56
6 4 5 0 1 4 2 926 0 15 1
7 1 30 15 19 20 0 0 685 0 258
8 9 17 4 35 8 3 15 4 809 70
9 5 18 0 13 150 6 7 3 15 792
0 1 2 3 4 5 6 7 8 9
1000
800
600
400
200
0


Train data confusion matrix
Label
Prediction
0 5502 14 17 16 15 27 111 5 197 19
1 0 6516 33 36 22 1 29 2 69 34
2 64 85 4506 677 94 10 147 54 227 94
3 13 76 108 5113 48 27 41 51 367 287
4 8 161 8 1 4978 0 295 4 47 340
5 45 46 21 575 189 3287 423 5 479 351
6 25 54 10 5 19 23 5668 0 113 1
7 3 143 37 78 144 0 6 4189 8 1657
8 33 215 12 246 131 32 93 7 4662 420
9 34 62 7 60 877 2 32 71 104 4700
0 1 2 3 4 5 6 7 8 9
6000
5000
4000
3000
2000
1000
0