Report

Keras

```
                              Model: "model"

Layer (type)                      Output Shape                Param #
=================================================================================================
input_1 (InputLayer)              [(None, 14, 14, 1)]         0

conv2d (Conv2D)                   (None, 14, 14, 16)          160

activation (Activation)           (None, 14, 14, 16)          0

max_pooling2d (MaxPooling2D)      (None, 7, 7, 16)            0

dropout (Dropout)                 (None, 7, 7, 16)            0

conv2d_1 (Conv2D)                 (None, 7, 7, 32)            4640

activation_1 (Activation)         (None, 7, 7, 32)            0

max_pooling2d_1 (MaxPooling2D)    (None, 3, 3, 32)            0

dropout_1 (Dropout)               (None, 3, 3, 32)            0

conv2d_2 (Conv2D)                 (None, 3, 3, 64)            18496

activation_2 (Activation)         (None, 3, 3, 64)            0

max_pooling2d_2 (MaxPooling2D)    (None, 1, 1, 64)            0

dropout_2 (Dropout)               (None, 1, 1, 64)            0

flatten (Flatten)                 (None, 64)                  0

dense (Dense)                     (None, 10)                  650

activation_3 (Activation)         (None, 10)                  0
=================================================================================================
                        Total params: 23,946
                        Trainable params: 23,946
                        Non-trainable params: 0
```
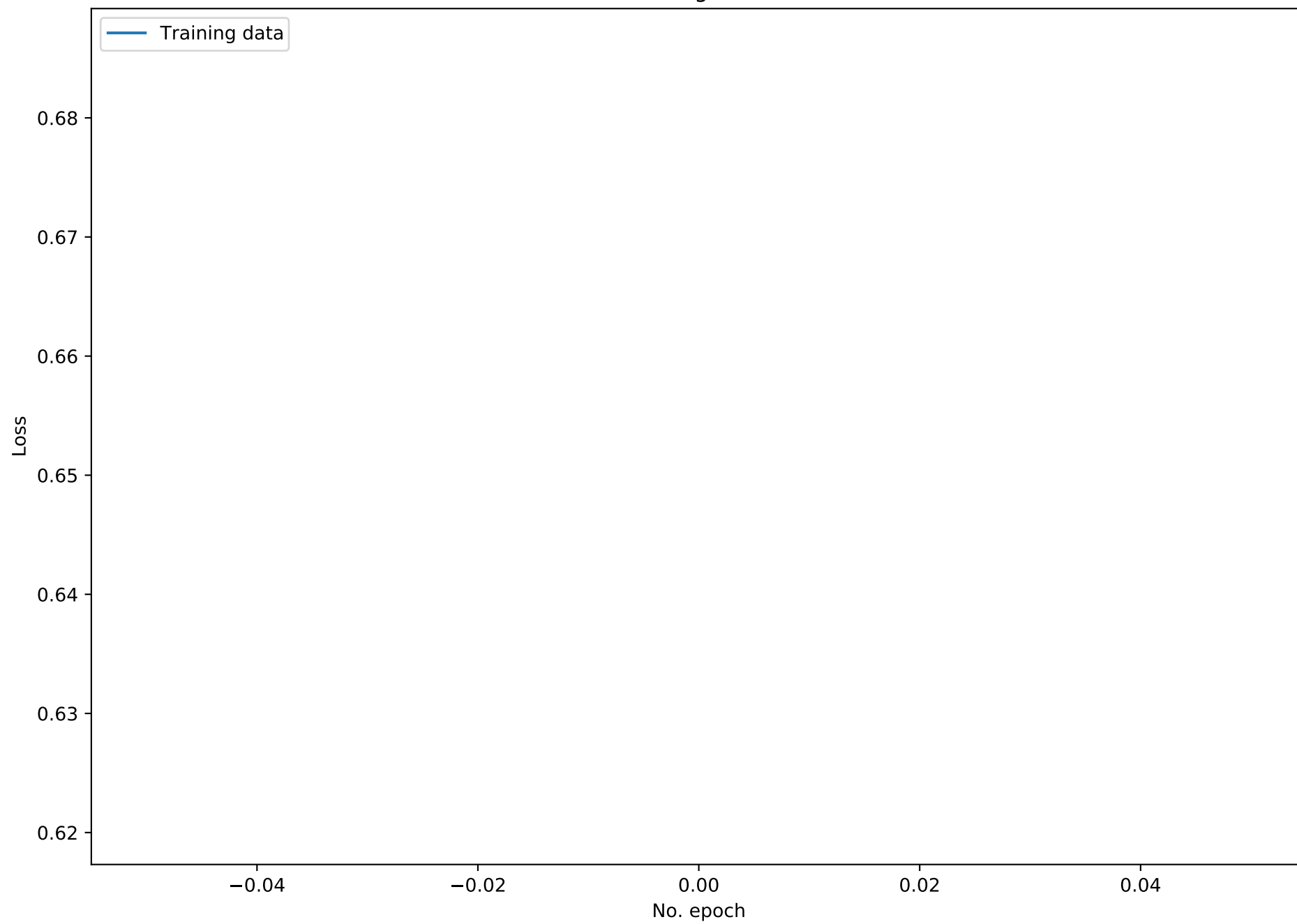
Model architecture

Training losses

Model accuracy

Test data confusion matrix

Train data confusion matrix

	Angle boot	Bag	Coat	Dress	Pullover	Sandal	Shirt	Sneaker	T-shirt	Trouser
Angle boot	5861	3	0	1	0	2	0	132	1	0
Bag	10	5789	31	36	25	8	55	36	9	1
Coat	0	29	5056	200	171	0	529	0	11	4
Dress	8	17	402	4987	63	0	133	0	336	54
Pullover	1	59	1715	30	3261	1	877	0	53	3
Sandal	388	20	0	2	0	4089	1	1500	0	0
Shirt	2	137	889	196	497	0	2969	0	1305	5
Sneaker	632	4	0	0	0	2	0	5362	0	0
T-shirt	2	88	28	301	76	2	484	1	5016	2
Trouser	7	8	27	426	66	0	24	0	23	5419

Label (vertical axis) — Prediction (horizontal axis)