

Model: "miniNN_no"

Layer (type)	Output Shape	Param #
=====		
input_2 (InputLayer)	[(None, 28, 56, 1)]	0
=====		
flatten (Flatten)	(None, 1568)	0
=====		
dense (Dense)	(None, 100)	156900
=====		
Total params: 156,900		
Trainable params: 156,900		
Non-trainable params: 0		
=====		
None		

Model: "CNN_no"

Layer (type)	Output Shape	Param #
=====		
input_3 (InputLayer)	[(None, 28, 56, 1)]	0
conv2d (Conv2D)	(None, 26, 54, 20)	200
max_pooling2d (MaxPooling2D)	(None, 13, 27, 20)	0
conv2d_1 (Conv2D)	(None, 12, 26, 30)	2430
average_pooling2d (AveragePo	(None, 6, 13, 30)	0
flatten_1 (Flatten)	(None, 2340)	0
dense_1 (Dense)	(None, 100)	234100

=====

Total params: 236,730
Trainable params: 236,730
Non-trainable params: 0

None

Model: "DNN_no"

Layer (type)	Output Shape	Param #
=====		
input_4 (InputLayer)	[(None, 28, 56, 1)]	0
flatten_2 (Flatten)	(None, 1568)	0
dropout (Dropout)	(None, 1568)	0
dense_2 (Dense)	(None, 555)	870795
dropout_1 (Dropout)	(None, 555)	0
dense_3 (Dense)	(None, 222)	123432
dense_4 (Dense)	(None, 100)	22300
=====		

Total params: 1,016,527
Trainable params: 1,016,527
Non-trainable params: 0

None

Model: "comboNN_no"

Layer (type)	Output Shape	Param #
=====		
input_5 (InputLayer)	[(None, 28, 56, 1)]	0
conv2d_2 (Conv2D)	(None, 26, 54, 20)	200
average_pooling2d_1 (Average)	(None, 13, 27, 20)	0
flatten_3 (Flatten)	(None, 7020)	0
dense_5 (Dense)	(None, 720)	5055120
dropout_2 (Dropout)	(None, 720)	0
dense_6 (Dense)	(None, 100)	72100
=====		
Total params: 5,127,420		
Trainable params: 5,127,420		
Non-trainable params: 0		
None		

Model: "ocNN_no"

Layer (type)	Output Shape	Param #	Connected to
=====			
input_6 (InputLayer)	[(None, 28, 56, 1)]	0	
conv2d_3 (Conv2D)	(None, 24, 52, 25)	650	input_6[0][0]
max_pooling2d_1 (MaxPooling2D)	(None, 12, 26, 25)	0	conv2d_3[0][0]
flatten_4 (Flatten)	(None, 1568)	0	input_6[0][0]
conv2d_4 (Conv2D)	(None, 10, 24, 25)	5650	max_pooling2d_1[0][0]
conv2d_6 (Conv2D)	(None, 26, 54, 22)	220	input_6[0][0]
dense_7 (Dense)	(None, 800)	1255200	flatten_4[0][0]
average_pooling2d_2 (AveragePool)	(None, 5, 12, 25)	0	conv2d_4[0][0]
conv2d_7 (Conv2D)	(None, 26, 54, 33)	2937	conv2d_6[0][0]
dropout_3 (Dropout)	(None, 800)	0	dense_7[0][0]
conv2d_5 (Conv2D)	(None, 5, 12, 25)	2525	average_pooling2d_2[0][0]
max_pooling2d_2 (MaxPooling2D)	(None, 13, 27, 33)	0	conv2d_7[0][0]
dense_8 (Dense)	(None, 500)	400500	dropout_3[0][0]
flatten_5 (Flatten)	(None, 1500)	0	conv2d_5[0][0]
dropout_5 (Dropout)	(None, 800)	0	dense_7[0][0]
conv2d_8 (Conv2D)	(None, 12, 26, 11)	1463	max_pooling2d_2[0][0]

dropout_4 (Dropout)	(None, 500)	0	dense_8[0][0]
dropout_6 (Dropout)	(None, 1500)	0	flatten_5[0][0]
dense_9 (Dense)	(None, 300)	240300	dropout_5[0][0]
flatten_6 (Flatten)	(None, 3432)	0	conv2d_8[0][0]
concatenate (Concatenate)	(None, 2000)	0	dropout_4[0][0] dropout_6[0][0]
concatenate_1 (Concatenate)	(None, 3732)	0	dense_9[0][0] flatten_6[0][0]
dropout_9 (Dropout)	(None, 800)	0	dense_7[0][0]
dropout_7 (Dropout)	(None, 2000)	0	concatenate[0][0]
dropout_8 (Dropout)	(None, 3732)	0	concatenate_1[0][0]
concatenate_2 (Concatenate)	(None, 6532)	0	dropout_9[0][0] dropout_7[0][0] dropout_8[0][0]
dropout_10 (Dropout)	(None, 6532)	0	concatenate_2[0][0]
dense_10 (Dense)	(None, 2222)	14516326	dropout_10[0][0]
dropout_11 (Dropout)	(None, 2222)	0	dense_10[0][0]
dense_11 (Dense)	(None, 222)	493506	dropout_11[0][0]
dense_12 (Dense)	(None, 100)	22300	dense_11[0][0]
=====			

Total params: 16,941,577
Trainable params: 16,941,577
Non-trainable params: 0

None