

Model: "multi_input_model_v1"

Layer (type)	Output Shape	Param #	Connected to
cnn_input (InputLayer)	(None, 256, 256, 1)	0	[]
conv2d_3 (Conv2D)	(None, 256, 256, 32)	320	['cnn_input[0][0]']
activation_6 (Activation)	(None, 256, 256, 32)	0	['conv2d_3[0][0]']
batch_normalization_5 (Batch Normalization)	(None, 256, 256, 32)	128	['activation_6[0][0]']
max_pooling2d_3 (MaxPooling2D)	(None, 128, 128, 32)	0	['batch_normalization_5[0][0]']
conv2d_4 (Conv2D)	(None, 128, 128, 64)	18496	['max_pooling2d_3[0][0]']
activation_7 (Activation)	(None, 128, 128, 64)	0	['conv2d_4[0][0]']
batch_normalization_6 (Batch Normalization)	(None, 128, 128, 64)	256	['activation_7[0][0]']
max_pooling2d_4 (MaxPooling2D)	(None, 64, 64, 64)	0	['batch_normalization_6[0][0]']
conv2d_5 (Conv2D)	(None, 64, 64, 128)	73856	['max_pooling2d_4[0][0]']
activation_8 (Activation)	(None, 64, 64, 128)	0	['conv2d_5[0][0]']
batch_normalization_7 (Batch Normalization)	(None, 64, 64, 128)	512	['activation_8[0][0]']
max_pooling2d_5 (MaxPooling2D)	(None, 32, 32, 128)	0	['batch_normalization_7[0][0]']
flatten_1 (Flatten)	(None, 131072)	0	['max_pooling2d_5[0][0]']
dense_10 (Dense)	(None, 64)	8388672	['flatten_1[0][0]']
activation_9 (Activation)	(None, 64)	0	['dense_10[0][0]']
batch_normalization_8 (Batch Normalization)	(None, 64)	256	['activation_9[0][0]']
dropout_2 (Dropout)	(None, 64)	0	['batch_normalization_8[0][0]']
dense_11 (Dense)	(None, 16)	1040	['dropout_2[0][0]']
activation_10 (Activation)	(None, 16)	0	['dense_11[0][0]']
batch_normalization_9 (Batch Normalization)	(None, 16)	64	['activation_10[0][0]']
mlp_input (InputLayer)	(None, 4)	0	[]
dropout_3 (Dropout)	(None, 16)	0	['batch_normalization_9[0][0]']
dense_8 (Dense)	(None, 8)	40	['mlp_input[0][0]']
dense_12 (Dense)	(None, 4)	68	['dropout_3[0][0]']
dense_9 (Dense)	(None, 4)	36	['dense_8[0][0]']
activation_11 (Activation)	(None, 4)	0	['dense_12[0][0]']
concatenate_1 (Concatenate)	(None, 8)	0	['dense_9[0][0]', 'activation_11[0][0]']

dense_13 (Dense)	(None, 32)	288	['concatenate_1[0][0]']
dense_14 (Dense)	(None, 64)	2112	['dense_13[0][0]']
dense_15 (Dense)	(None, 128)	8320	['dense_14[0][0]']
dense_16 (Dense)	(None, 64)	8256	['dense_15[0][0]']
dense_17 (Dense)	(None, 32)	2080	['dense_16[0][0]']
class_output (Dense)	(None, 15)	495	['dense_17[0][0]']

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Total params: 8,505,295
Trainable params: 8,504,687
Non-trainable params: 608

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