

Automatic generated report CNET0017.

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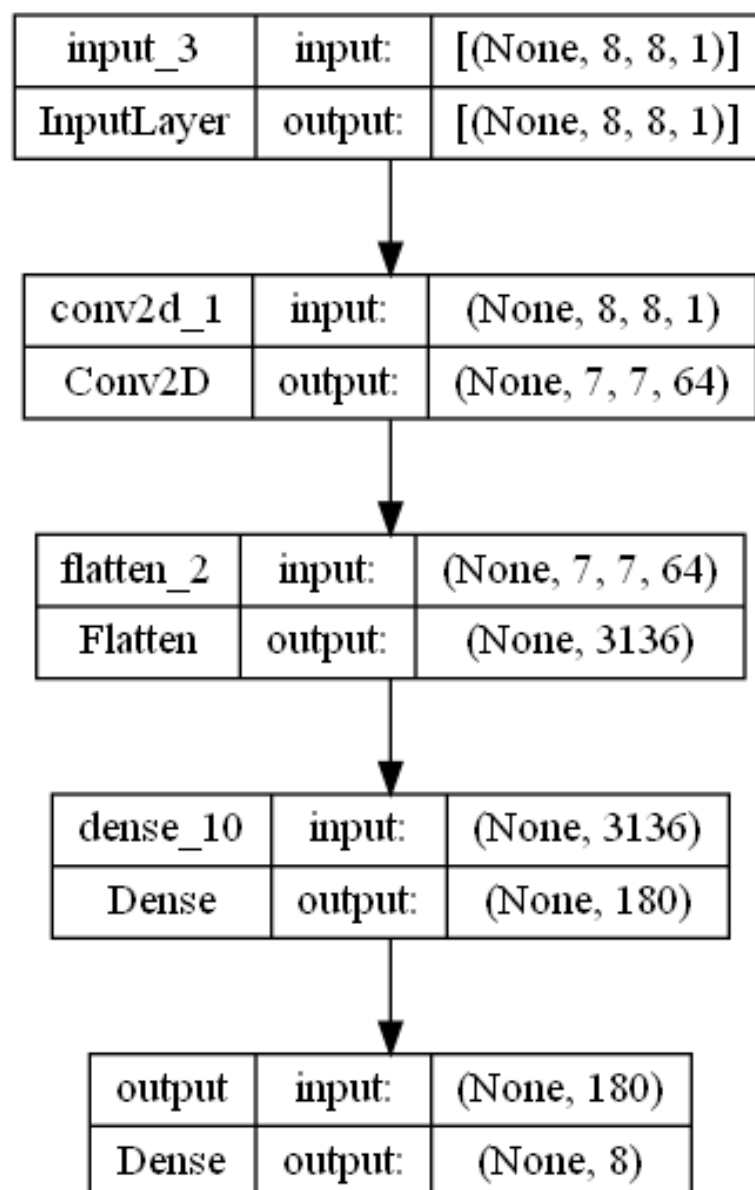


Fig. 1: Model visualization

1 Model

The model has been compiled successfully with the following parameters:

Layer	Shape	Attributes
Conv2D	(64, 2)	
Flatten	(None,)	
Dense	(180,)	

Tab. 1: Model architecture and attributes.

Model summary		
Model: "current_model_0"		
Layer type	Output Shape	Param #
input_1 InputLayer	[None, 8, 8, 1]	0
flatten Flatten	None, 64	0
dense Dense	None, 128	8320
dense_1 Dense	None, 64	8256
dense_2 Dense	None, 32	2080
dense_3 Dense	None, 64	2112
dense_4 Dense	None, 128	8320
output Dense	None, 8	1032
Total params: 30,120		
Trainable params: 30,120		
Non-trainable params: 0		
Model: "current_model_1"		
Layer type	Output Shape	Param #
input_2 InputLayer	[None, 8, 8, 1]	0
conv2d Conv2D	None, 7, 7, 64	320
dense_5 Dense	None, 7, 7, 128	8320
dense_6 Dense	None, 7, 7, 64	8256
dense_7 Dense	None, 7, 7, 32	2080
dense_8 Dense	None, 7, 7, 64	2112

dense_9 Dense	None, 7, 7, 128	8320
flatten_1 Flatten	None, 6272	0
output Dense	None, 8	50184

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Total params: 79,592
Trainable params: 79,592
Non-trainable params: 0
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Model: "current_model_2"
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Layer type           Output Shape          Param #
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input_3 InputLayer   [None, 8, 8, 1]       0
conv2d_1 Conv2D       None, 7, 7, 64        320
flatten_2 Flatten     None, 3136             0
dense_10 Dense        None, 180              564660
output Dense         None, 8                1448
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Total params: 566,428
Trainable params: 566,428
Non-trainable params: 0
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1.1 Compiler

- *Problem specifications.* The input shape mesh is $(8, 8, 1)$, while the output shape is (8) .
- *Compiling options.* The model makes use of the *mean squared error* loss function and the *adam* optimizer. The metrics taken into account are accuracy and loss.
- *Devices.* The model was trained with 1GPUs.

2 Database

The database **32k 8t 0w** was generated with *hypertrain*. The training - validation - test distribution is *'train': 70, 'validation': 20, 'test': 10* and the total size of the database is $(22938, 6554, 3276)$.

3 Performance

The obtained learning curve is shown below. With **maxloss**: 0.0977, and **minloss**: 0.081.

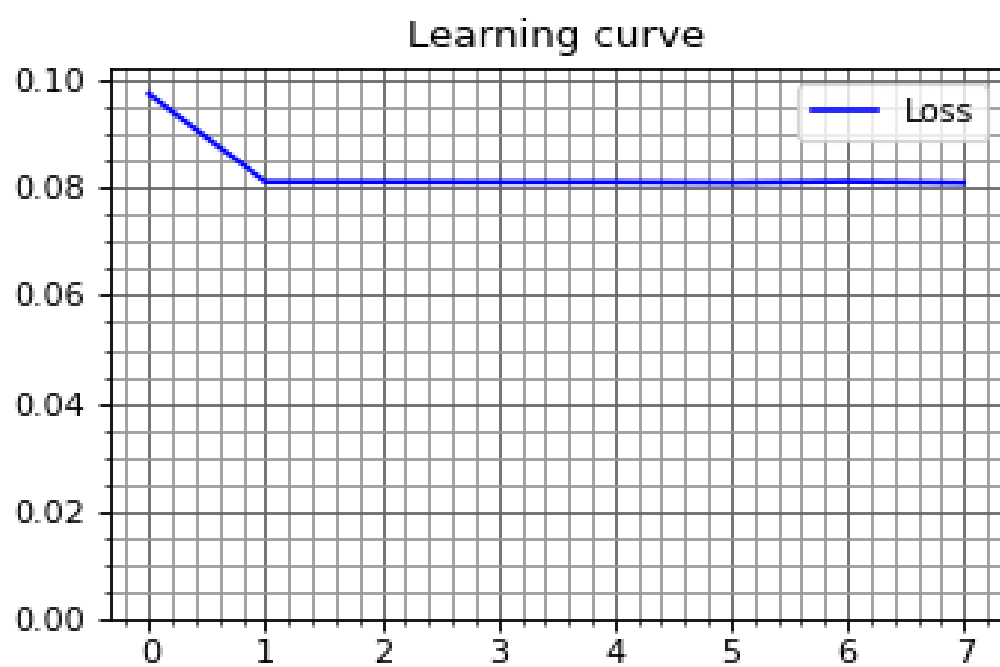


Fig. 2: Learning curve with the introduced database.