

Automatic generated report CNET0016.

Author: Palomo Alonso, Alberto

Date of submission: October 18, 2022.

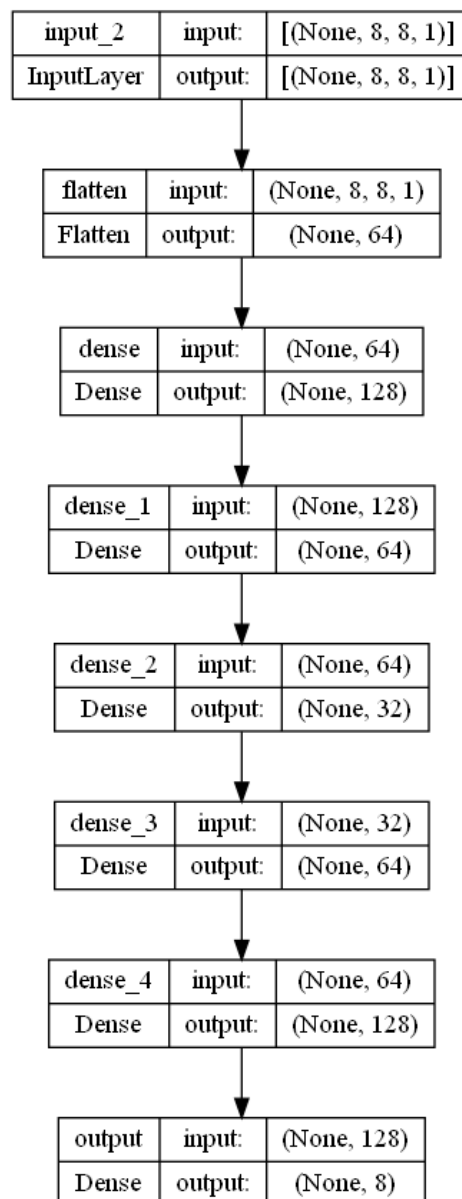


Fig. 1: Model visualization

1 Model

The model has been compiled successfully with the following parameters:

Layer	Shape	Attributes
Flatten	(None,)	
Dense	(128,)	
Dense	(64,)	
Dense	(32,)	
Dense	(64,)	
Dense	(128,)	

Tab. 1: Model architecture and attributes.

Model summary		
Model: "model"		
Layer type	Output Shape	Param #
input_2 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		

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**: 0.0949, and **minloss**: 0.0811.

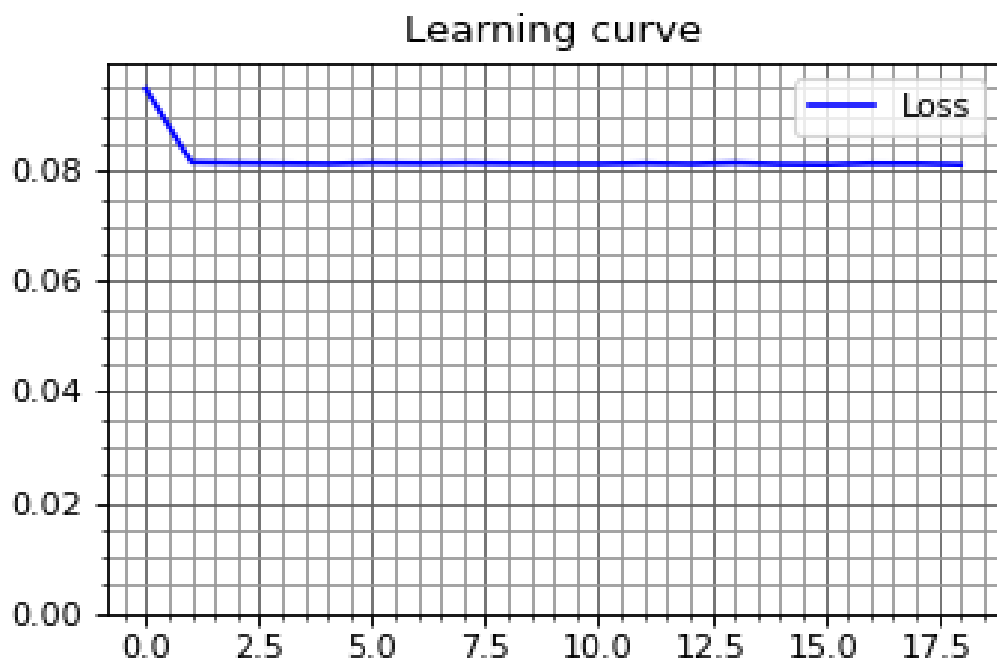


Fig. 2: Learning curve with the introduced database.