Automatic generated report CNET0042.

Author: Palomo Alonso, Alberto
Date of submission: October 28, 2022.

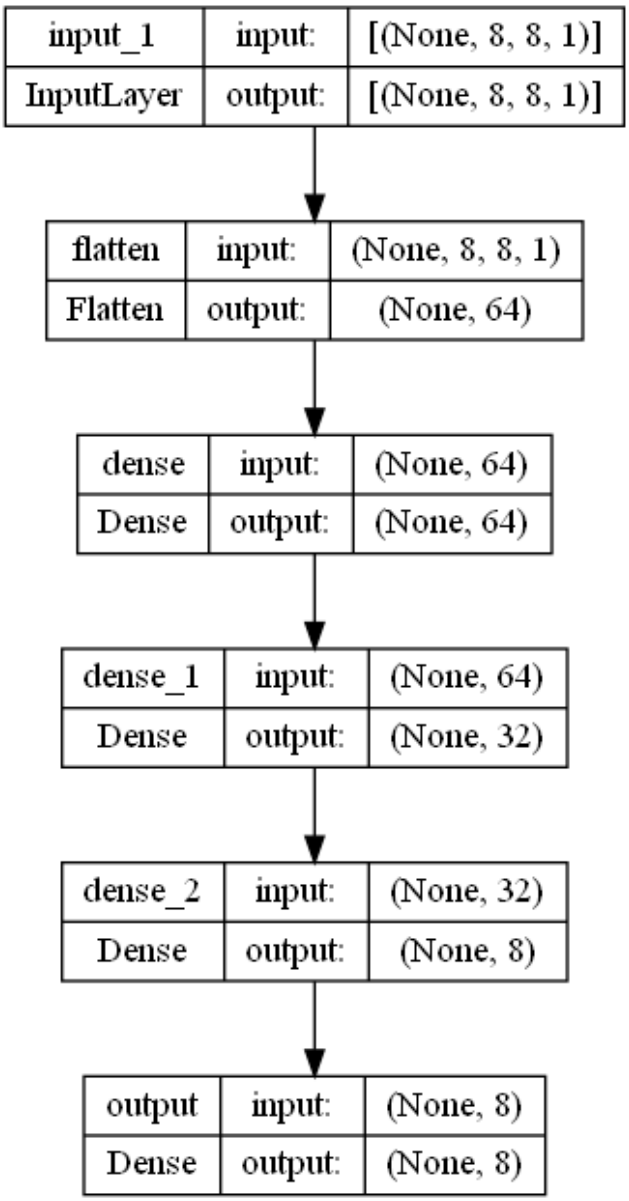

Fig. 1: Model visualization

1 Model

The model has been compiled successfully with the following parameters:

Layer	Shape	Attributes
Flatten	(None,)	
Dense	(64,)	
Dense	(32,)	
Dense	(8,)	

Tab. 1: Model architecture and attributes.

Model summary

```
Model: "model_0"
_________________________________________________________________
 Layer type                 Output Shape              Param #
=================================================================
 input_1 InputLayer         [None, 8, 8, 1]           0

 flatten Flatten            None, 64                  0

 dense Dense                None, 64                  4160

 dense_1 Dense              None, 32                  2080

 dense_2 Dense              None, 8                   264

 output Dense               None, 8                   72

=================================================================
Total params: 6,576
Trainable params: 6,576
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 *BaseNetDatabase (BND)* . The training - validation - test distribution is *(70, 20, 10)* and the total size of the database is *32768*.

3 Performance

The obtained learning curve is shown below. With **maxloss**: 0.0263, and **minloss**: 0.0.

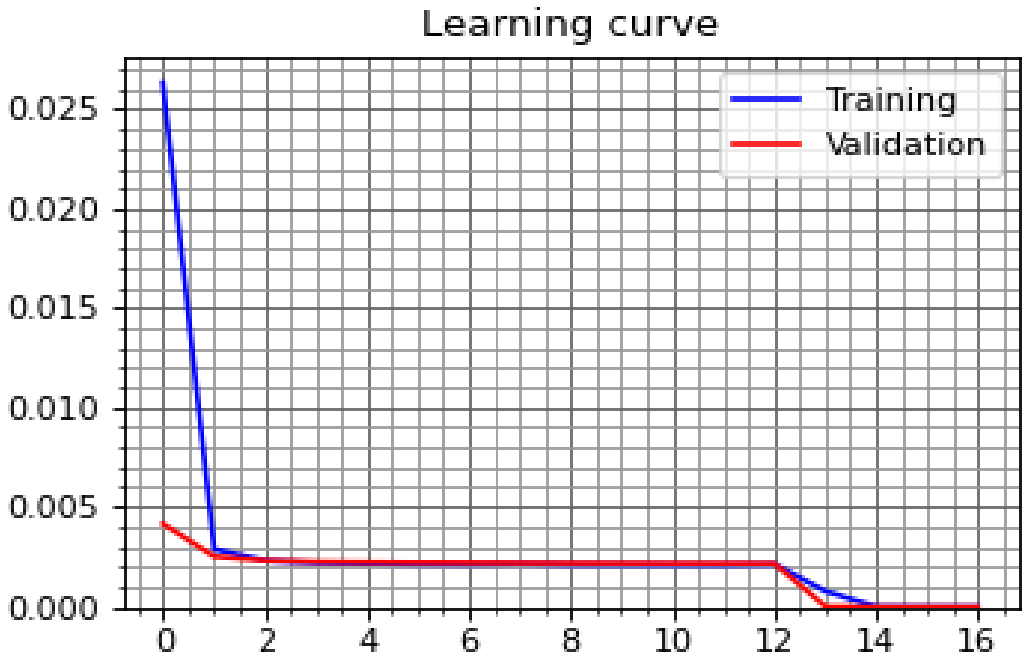

Fig. 2: Learning curve with the introduced database.