

## Automatic generated report CNET0053.

*Author: Palomo Alonso, Alberto*

*Date of submission: November 8, 2022.*

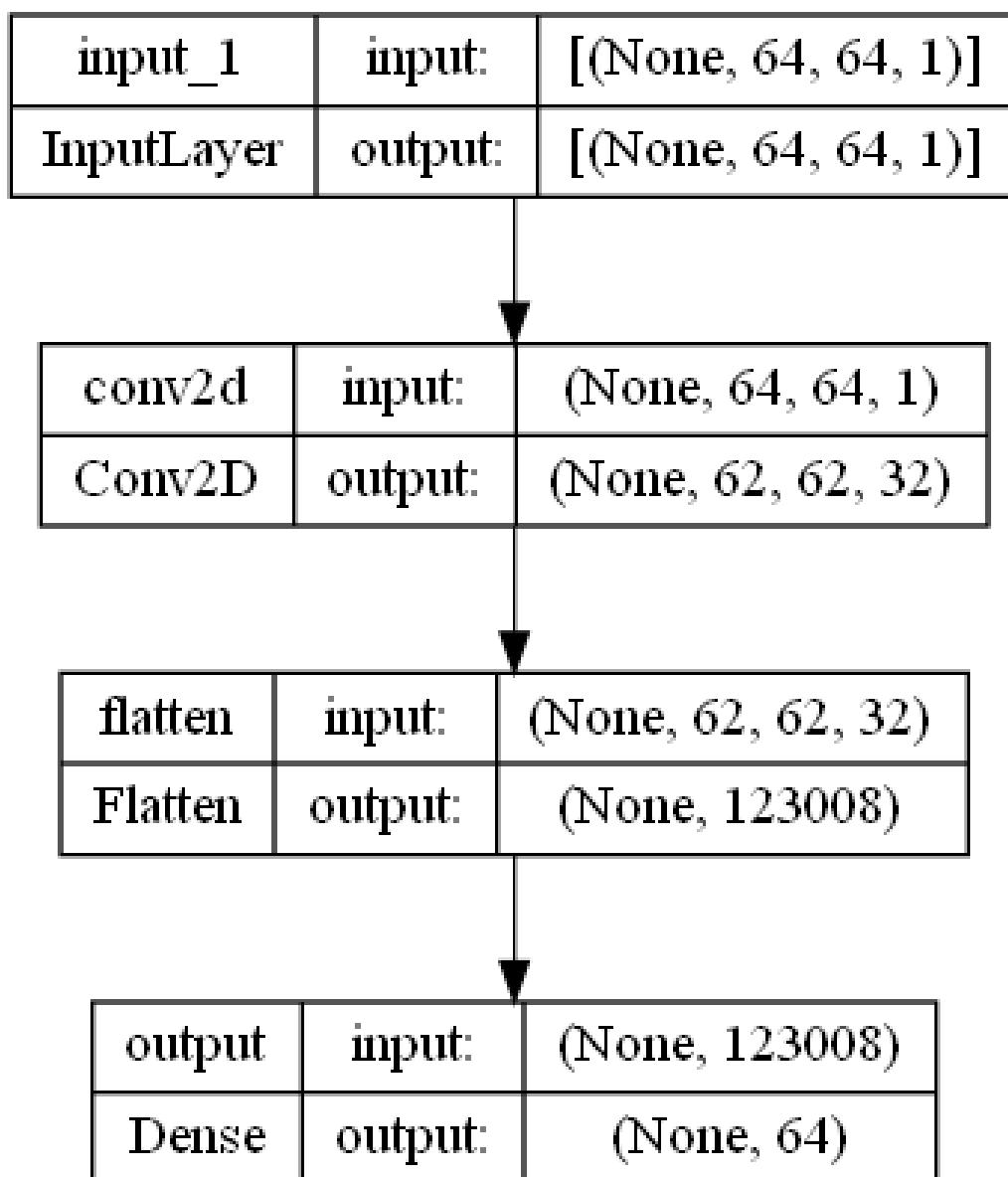


Fig. 1: Model visualization

## 1 Model

The model has been compiled successfully with the following parameters:

Layer	Shape	Attributes
Conv2D	(32, 3)	
Flatten	(None,)	

Tab. 1: Model architecture and attributes.

Model summary		
Model: "model_0"		
Layer type	Output Shape	Param #
input_1 InputLayer	[None, 64, 64, 1]	0
conv2d Conv2D	None, 62, 62, 32	320
flatten Flatten	None, 123008	0
output Dense	None, 64	7872576
Total params: 7,872,896		
Trainable params: 7,872,896		
Non-trainable params: 0		

### 1.1 Compiler

- *Problem specifications.* The input shape mesh is  $(64, 64, 1)$ , while the output shape is  $(64)$ .
- *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 **wikipedia dataset** was generated with *BaseNetDatabase (BND)* . The training - validation - test distribution is  $(0.6999036608863198, 0.15028901734104047, 0.1498073217726397)$  and the total size of the database is 16608.

## 3 Performance

The obtained learning curve is shown below. With **maxloss**: 0.0592, and **minloss**: 0.0571.

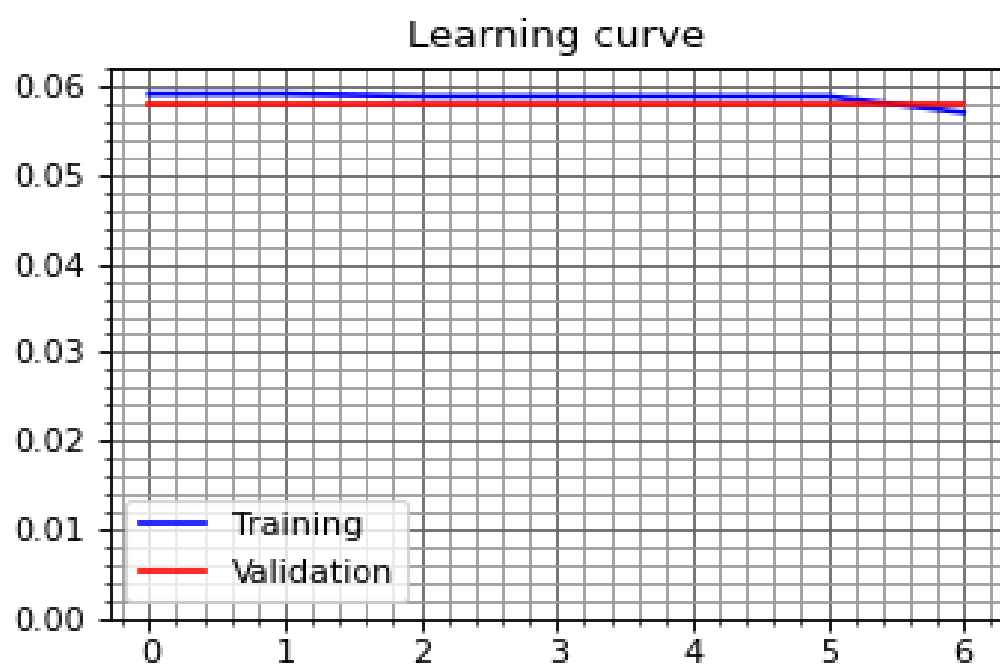


Fig. 2: Learning curve with the introduced database.