

Artificial Intelligence Methods
Assignment 8
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Deliver a PDF that documents the parameters you have used when defining the models, and the obtained results, along with your code.

Those are the parameters I have adjusted until I have reached the best results.
Their values are as follows:

- output_dim = 128
- batch_size = 128
- epochs = 2
- validation_split = 0,1 **Results:**

```
1. Loading data...
2. Preprocessing data...
3. Training feedforward neural network...
Epoch 1/2
2764/2764 ██████████ 51s 18ms/step - accuracy: 0.8640 - loss: 0.3046 - val_accuracy: 0.8966 - val_loss: 0.2425
Epoch 2/2
2764/2764 ██████████ 47s 17ms/step - accuracy: 0.9093 - loss: 0.2159 - val_accuracy: 0.8998 - val_loss: 0.2356
4079/4079 ██████████ 11s 3ms/step - accuracy: 0.8989 - loss: 0.2391
Model: Feedforward NN.
Test accuracy: 0.900
4. Training recurrent neural network...
Epoch 1/2
2764/2764 ██████████ 277s 100ms/step - accuracy: 0.8741 - loss: 0.2866 - val_accuracy: 0.9222 - val_loss: 0.1883
Epoch 2/2
2764/2764 ██████████ 273s 99ms/step - accuracy: 0.9264 - loss: 0.1811 - val_accuracy: 0.9292 - val_loss: 0.1762
4079/4079 ██████████ 108s 26ms/step - accuracy: 0.9282 - loss: 0.1803
Model: Recurrent NN.
Test accuracy: 0.929
```

For the Feedforward Neural Network I have got an accuracy of 90%.
For the Recurrent Neural Network I have got an accuracy of 92,9%.