

COMPUTATIONAL INTELLIGENCE

Laboratory 2: Assignments



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Assignments for Lab 2



1. Finish the assignments from laboratory 1 because of having some technical problems with the software the last time (e.g. RapidMiner tutorials and construction of your model).
2. Download [the next notebook](#) from my website and compare the comparisons of various multiplications made by **vectorization** and without it (try to use vectorized models always when implementing deep learning models):

Vectorization and Broadcasting

3. Compare the processing time of the vectorized and non-vectorized models in [Jupyter Notebook](#) and [Google Colab Notebook](#) to be conscious which one is running computations faster on your computer?



Assignments for Lab 2



4. Download [the notebook with the vectorization and shapes of matrices assignments](#) and try to write your code to complete them:

**Vectorization and Shapes of Matrices
(assignment)**

Recall from the lecture how the shape can be changed by you making the computations faster and more convenient: [reshape](#).

5. Download the notebook with [the assignment and try to complete the activation functions and their derivatives](#):

**Activation functions of neurons
(assignment)**

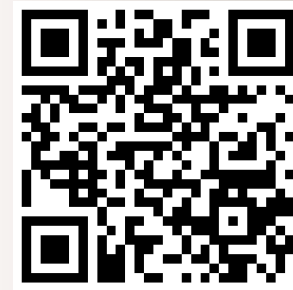
6. Download [the notebook presenting basic neural network functions and loss functions of artificial neurons](#):

Neural Network Loss Functions

go through it and make you familiar with them.



Let's start with powerful computations!





Bibliography and Literature

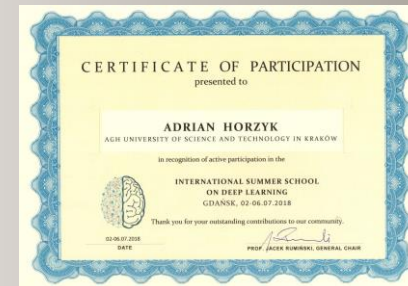
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