**Belarusian State University   
Faculty of Mechanics and Mathematics  
Department of nonlinear analysis and analysis of the economy**

**Annotation to the diploma work  
"** **Neural networks and their applications to predict financial risk "**

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Work consist of:

* 49 pages

* 2 images

* 4 attachments

* used 15 printed sources

Key words: NEURAL NETWORKS, NEURON, MACHINE TRAINING, MODELING, FORECASTING, PERCEPTRON, MULTILAYER PERCEPTRON

This graduation project deals with questions and aspects of mathematical methods of analysis of economic information using of methods of neural networks.

To achieve the objective used:

* Information from printed sources (in most from science publications, magazines)

* Algorithms of numerical methods

* Methods of data processing and visualization

Achievements of work:

* Have been described mathematical model of the neuron

* Have been described methods for constructing neural networks

* Have been given practical examples with using of Python language

This work is theoretical. Its results can be used in special courses for the neural networks.

Work is actual due to the small number of publications оn economic applications sand wide clarification of theme with using of last science data.

The work was performed by the author himself.