Theme of the Graduation Thesis: "Designing a forecasting system based on neural networks (on the example, an educational institution).

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Relevance of the research topic: Currently, most of the scientific developments of mankind are related to artificial intelligence and methods of its use in solving problems of any nature, from domestic affairs to the development of the latest equipment and the treatment of acute diseases in the last stages. Neural networks are indispensable in the analysis of data, in particular for preliminary analysis and selection, in identifying "facts of loss" or very critical errors of the decision-maker. So predicting the development of the child in the educational environment becomes almost impossible due to the large number of errors. Neural network methods can be used independently of other methods of analysis or be one of the best additions to traditional methods of statistical analysis, most of which are associated with the construction of models based on assumptions and theoretical conclusions. However, neural network forecasting has not yet become a classical approach for predicting the state of education in any of the countries of the world, although it has greater accuracy and error counteraction, therefore, we consider the use of neural networks in developing a software tool for predicting the success of a child in an educational institution primary or secondary education.

Objective: design a forecasting system based on neural networks. The system under development will make it possible to predict the success of a school student in a future class, which is especially important for final classes (4, 9, 11).

Tasks:

1. Review and analysis of modern forecasting methods.

2. Review and analysis of existing neural network architectures.

3. Development of the architecture of the designed neural network.

4. Development of a software product that implements a student's success forecast.

5. Analysis of the effectiveness of the forecasting system.

Theoretical and practical significance of the research: consists in approbation, proposed in the framework of graduate qualification work, technology for predicting the success of a student educational institution of secondary education.

Results of the research: The developed software product meets all modern requirements of information technology, namely:

1. Convenience.

2. Relevance.

3. Adaptability.

4. Accuracy.

Recommendations: The results obtained and the developed software product is recommended for implementation in educational institutions.