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DEVELOPMENT OF THE PROJECT TO CREATE INFORMATION TECHNOLOGY FOR DETECTING HIDDEN CONTENT IN TEXT MESSAGES

It is proposed to create a project for information recognition system of hidden content in text messages, which is based on the use of modern methods of processing "Great data" and in-depth machine learning. The project provides for the development of a management and research unit that will help identify the most common areas of application of the information system. On the basis of mathematical-statistical analysis of the subject area, a software prototype for the recognition of hidden content in text messages was developed.

Problem. Currently, the recognition of the approved content of text messages is a very relevant subject, due to increased terrorist acts aimed at state facilities and civilians and a large number of hacker attacks on various kinds of enterprise. Recognizing the above threats using standard methods of selecting keywords from a text message does not produce the desired results.

Approaches to solution. The proposed information system will consist of three main parts. The first part will carry out a detailed analysis of existing methods and allocation of the latest technologies, with the help of which, it will be possible to achieve the desired result. Integration of the developed information system with the existing personnel management software at Team Foundation Server will also be created. A plan and timeline for the task will be developed. Testing of the developed prototype will also be conducted. The next part will be a mathematical-statistical analysis of existing methods for recognizing the hidden content of text messages, as well as creating a mathematical basis for the program realization of the task. By analyzing the scope of the use of information systems to detect hidden content in text messages, it was revealed that the developed system would be aimed at identifying terrorist threats at public and private enterprises that deal with a large population of people. It is planned to conduct a complete statistical and mathematical analysis of modern methods for recognizing the hidden content of text messages on the basis of which will be developed its own software, aimed at analysis of text messages. The information system is based on the use of "Big Data" processing methods, namely the recognition of hidden message content by technical means and various libraries of the high level programming language Python and machine learning with the help of Apache Spark technologies.

Conclusions. The proposed information system should have a high probability of recognizing the content of hidden messages in comparison with known software solutions. The developed mathematical-statistical analysis should describe the work of the information system in full.

References

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