



Design of Intelligent Software Security System Based on Spark Big Data Computing

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Abstract

With the rapid development of computer science and technology, the Internet has penetrated into various fields of society and economy. However, there are still many unsatisfactory aspects of software security, such as hackers illegally invading systems and stealing important information, and various software vulnerabilities emerging, which make people have to face unknown risks. Big data computing, as an emerging technology, has largely solved this problem. This article used the Spark platform in big data to evaluate the performance of intelligent software security systems. It discussed the specific implementation methods to improve system acceleration ratio and achieve good data scalability and scalability. Finally, combining encryption and authentication technologies, a design scheme for an intelligent software protection system based on the Spark platform in big data was proposed. The application of Spark big data computing technology in the design and implementation of intelligent software security protection systems has greatly improved the system's recognition speed for software vulnerabilities, increased recognition accuracy, and reduced the data loss rate when facing attacks by approximately 2.14%, effectively reducing the losses caused by software failures. In the era of big data, information security protection still faces many new challenges, and it is necessary to improve network security technology and related products from multiple perspectives to adapt to future social development needs and provide users with better and more comprehensive services.

Keywords Spark technology · Software security · Big data · Intelligent decision making · Intelligent decision technology

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