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The exploration into computer network virus defense technology based on data mining (Article)

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Abstract

With the development and popularization of network technology and computer science, network virus can transmit through the network's vulnerabilities and the correlative advantages of the global Internet. It has become the major threat to the security of network system. Computer network virus defense Technology based on data mining can fully resist the generation and transmission of virus. In this study, focusing on the transmission patterns of computer virus, a computer network virus defense system is designed with five analytical methods of data mining technology, which are association rule analysis, cluster analysis, classification analysis, heterogeneous analysis, and sequence analysis. This computer network virus defense system is composed of the preprocessing module, decision module, data collection module, data mining module, and rule base module. Field research reveals that this system achieves significant effects gain when defending against the transmission of computer virus.

Author keywords

Computer network; Data mining; Defense; Virus

Indexed keywords

Engineering controlled terms: Cluster analysis; Computer networks; Data acquisition; Data mining; Viruses

Association rule analysis; Classification analysis; Data collection modules; Data mining technology; Defense; Defense technologies; Network technologies; Preprocessing modules

Engineering main heading: Computer viruses

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