Abstract

Analysis of system security becomes a major task for researchers. Intrusion detection plays a vital role in the security domain in these days, Internet usage has been increased enormously and with this, the threat to system resources has also increased. Anomaly based intrusion changes its behaviour dynamically, to detect these types of intrusions need to adopt the novel approaches are required. Detection of intrusion is very important at the same time both accuracy and speed are imperative factors in the real environment. Analyzing intrusive behaviour of the network data is crucial because it contains huge amounts of data as well as the dimensions of the data are also a problem to researchers in detecting intrusive behaviour. In this paper rough set theory is used for the dimensional reduction and the feature selection. Once feature selection is done, Support Vector Machines (SVM) is used to classify the reduct data by using kernel trick. SVM works based on the structural risk minimization principle. It classifying the data in the faster manner with more accuracy to detect the intruder, here we achieved better results than existing techniques.
Anomaly Detection using Feature Selection and SVM Kernel Trick

References

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Index Terms

Computer Science  Information Sciences
Keywords

kernel trick, anomaly detection, support vector machine, features selection.