Artificial Neural Network and Genetic Clustering based Robust Intrusion Detection System

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Abstract

To improve network security different steps has been taken as size and importance of the network has increases day by day. In order to find intrusion in the network IDS systems were developed. In this paper main focus was done on finding the type of session i.e. normal or intrusion where if intrusion found than class of intrusion was detected. Here whole work was so designed that automatic clustering of various sessions are done by using genetic algorithm steps while clustered data is taken as the input in the neural network for training. So, the need of special identification was required in this work for session class. Error back propagation neural network was used by this work training and testing. Experiment was done on real dataset where various set of testing data was pass for comparison on different evaluation parameters.

References


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12. NSL-KDD dataset
source:https://github.com/defcom17/NSL_KDD/blob/master/Original%20NSL%20KDD%20Zip.zip

Index Terms

Computer Science
Artificial Intelligence
Keywords

Anomaly, ANN, Clustering, Genetic Algorithm, Intrusion Detection.