عنوان فارسی مقاله:

سیستم کشف نفوذ مبتنی بر دسته کننده چند دسته ای

Naive Bayes مخفی

عنوان انگلیسی مقاله:

A network intrusion detection system based on a

Hidden Naïve Bayes multiclass classifier

توجه!

این فایل تنها قسمتی از ترجمه میباشد. برای تهیه مقاله ترجمه شده کامل
با فرمت ورد (قابل ویرایش) همراه با نسخه انگلیسی مقاله، اینجا کلیک کنید.
4. Conclusion

In this paper, we explained the need to apply data mining methods to network events to classify network attack events. We summarized the results of earlier studies and explored the earlier models on the performance improvement of the Naïve Bayes model in data mining and introduced the HNB model as a solution to the intrusion detection problem. We augmented the Naïve Bayes and structurally extended Naïve Bayes methods with the leading discretization and feature selection methods to increase the accuracy and decrease the resource requirements of intrusion detection problem. We compared the performance of the Naïve Bayes and leading extended Naïve Bayes approaches with the new HNB approach as an intrusion detection system. The results of our experimental study, which uses the KDD’99 dataset, show that the Hidden Naïve Bayes multiclass classification model augmented with various discretization and feature selection methods exhibits better overall results in terms of detection accuracy, error rate and misclassification cost than the traditional Naïve Bayes model, the leading extended Naïve Bayes models and the KDD’99 winner. The results also indicate that our model significantly improves the detection of denial-of-service attacks compared with the other models.