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(57) Abstract :
A trustworthy intrusion system will deliver accurate categorization findings while saving time. This is a crucial element of any intrusion detection system. The primary objective of this research was to discover the optimal method for combining training functions and feature selection for optimal performance. We offer a method for identifying intrusions using a deep learning-based multi-classifier ensemble and the random forest feature selection method. With so much information to analyse, the intrusion detection system will undoubtedly identify redundant and noisy characteristics. If the classifier approach is inadequate, detection will become even less precise. After using random forest feature selection to establish the ideal subset of features for training the support vector machine, decision tree, naive bayes, and k-nearest neighbour classification algorithms, it used deep learning to aggregate the results from all four classifiers. The results of the experiment indicate that the proposed method has a strong chance of delivering substantially more precise intrusion detection than the conventional voting system.

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