Abstract

The paper proposes a parallel SVM for detecting intrusions in computer network. The success of any Intrusion Detection System (IDS) is a complex problem due to its non-linearity and quantitative or qualitative traffic stream with irrelevant and unnecessary features. How to choose effective and key features of IDS is a very important topic in information security. Since the training data set size may be very large with a large number of parameters, which makes it difficult to handle single SVM therefore parallel LMM concept is proposed in this paper for distributing data files to n different sets of n different devices that reduce computational complexity, computational power and memory for each machine. The proposed method is simple but very reliable parallel operation SVM and can be used for large data files and unbalanced method also provides the flexibility to change depending on the size of the data file, the processor and the memory available on the various units. The proposed method is simulated using MATLAB and the result shows its superiority.
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