

Table 3. Optimizing results

C	g	accuracy
1	0.3	95.0741
1	0.03	94.6049
1	0.003	94.1481
1	0.0003	82.4691
10	0.3	95.2469
10	0.03	94.9877
10	0.003	95.6049
10	0.0003	88.2099
100	0.3	95.3951
100	0.03	95.1235
100	0.003	95.4568
100	0.0003	90.4568
1000	0.3	95.3704
1000	0.03	95.284
1000	0.003	96.6543
1000	0.0003	91.2963

4. Conclusions

This paper proposes a novel SVM approach with K-fold Cross-Validation to optimize the attributes and SVM model in the IDS. These online data experimental results have been derived and analyzed. Compared with some representative machine learning method, online data experimental results show that this method can be used to reduce the rate of False-Negatives in the intrusion detection system.

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