Abstract

The growing of information technology indirectly make more types of intrusions that endanger the security of a computer network or information systems. To detect intrusions is required a system called the Intrusion Detection System (IDS). Many methods can be done to build the IDS. One is a data mining technique to generate detection models that can distinguish between normal or intrusion connection type. At this final project, implemented a hybrid algorithm that uses two learning algorithms, namely Eager Learning and Lazy Learning. For Eager Learning is used RIPPER algorithm while for Lazy Learning is used Nearest Neighbor algorithm (K-NN). Accordance with its name, Eager Learning more invest time in learning phase, while Lazy Learning spend more time in classification phase. The application of feature selection and resampling on training data used to form the training data more representative. Tests carried out with several scenarios to determine the value of accuracy, precision, recall, and f-measure of the detection models that produced. At this stage of analysis and testing, detection models that produced can provide the best value of 92.3220% accuracy using the testing data.

Keywords: intrusion detection system, hybrid algorithms, classification, ripper, nearest neighbour.