FINAL YEAR PROJECT REPORT

A COMPARATIVE STUDY AND ANALYSIS OF NAIVE BAYES ALGORITHM, SUPPORT VECTOR MACHINE AND APRIORI DATA MINING ALGORITHMS FOR INTRUSION DETECTION SYSTEMS (IDS)

A project report submitted in partial fulfilment of the Requirements for the award of the degree of Bachelor of Sciences (Information Technology)

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DECLARATION

We declare that this is our original work which is done on the project report except for quotations and citations which are acknowledged. We also declare that this work has not submitted before.

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APPROVAL

We approve that this report "**A COMPARATIVE STUDY AND ANALYSIS OF NAIVE BAYES, SUPPORT VECTOR MACHINE AND APRIORI DATA MINING ALGORITHMS FOR INTRUSION DETECTION SYSTEMS**" was prepared by **SYED ZEESHAN IJAZ GILLANI, ERUM OJALA AND ABDUL SAMAD** has completely met the standard which is required as the partial fulfilment for degree **INFORMATION TECHNOLOGY** at Bahria University.

I.MEMON

Approved by, Sir Imran Memon

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ABSTRACT

The purpose of this project is to compare, contrast and examine naive Bayes, apriori algorithms and support vector machine for IDS. This project focuses on data mining concepts and techniques that give meaning to data and classification techniques which are used in data mining which includes Anomaly detection, Regression, Association rule learning, Clustering, summarization and regression. There are different mining tools to solve the problems. We use some research methods involving tracking patterns which is used to recognize data patterns in data set.

We used supervised learning in this project because supervised learning uses training data for inferred function which helps in mapping the new examples. It helps to identify the class labels of the instances which are unseen. It generalizes the training data from unseen data according to general ways.

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CHAPTERS