**DATA MINING REPORT**

***DECISION TREE, RANDOM FOREST & ARTIFICIAL NEURAL NETWORKS***

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**T**hisreport presents a comparative analysis of machine learning algorithms such as Decision Trees and Random Forest along with Artificial Neural Networks. These algorithms are applied to mushroom dataset which is a description of hypothetical samples corresponding to 23 species of gilled mushrooms in the Agaricus and Lepiota Family.

**Artificial Neural Networks**

Artiﬁcial neural networks (ANN) are powerful classiﬁcation models that can learn highly complex and nonlinear decision boundaries purely from the data. ANNs are powerful classiﬁcation models that can learn highly complex and nonlinear decision boundaries purely from the data. An input node is used to represent the input attributes, and an output node is used to represent the model output. A perceptron is a simple type of ANN model.