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**MIT WORLD PEACE
UNIVERSITY** | PUNE
TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIP

School of Computer Engineering and Technology

T. Y. B. Tech. CSE (Cyber Security and Forensics) Semester V

Academic Year: 2023-2024

Artificial Intelligence and Machine Learning (CET3026B)

Assignment 5

Title - Write a program to implement SVM classifier, compare with decision tree algorithm.

Aim - Write a program to implement SVM classifier, compare with decision tree algorithm.

Objective – To study the SVM classifier and decision tree algorithm.

Algorithm – SVM and Decision tree algorithm

Platform – Windows

Theory –

1. Overview of Support Vector Machines (SVM) and Decision Trees as classification algorithms.
2. What is confusion matrix. Evaluation metric(s) used to compare the performance of the classifiers (e.g., accuracy, F1-score, recall, F1_score)
3. Explain Iris Dataset. Explain how the dataset was divided into training and testing sets. Mention the train-test split ratio.

FAQs –

1. State the objectives of the lab experiment.
2. Specify the parameters and hyperparameters used for both the SVM and Decision Tree classifiers (e.g., kernel type for SVM, maximum depth for the Decision Tree).
3. Explain the importance of comparing these two algorithms.

Note: Entire write-up should be between 2-3 pages.

Download from the course
shell the following comma
separated file: titanic.csv. This
file contains

the details of each passenger
on the Titanic and also
whether they survived or not.

A brief description of the
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