

Artificial Intelligence And Machine Learning Lab (CC3230)

Lab File

Submitted by: Ayush Sharma
209303312

Submitted to:
Mr Arpit Kumar Sharma

INDEX

Sno.	Name of the experiment	Remarks
1&2	Introduction to Python	
3	Write a program to implement hill climb search algorithm	
4	Write a program to implement A* search algorithm	
5	Write a program to solve some real-world problem using constraint satisfaction	
6 & 7	Write a program to Implement Simple Linear and Logistic Regression.	
8	Write a program to implement the Bayes Classifier and SVM Classifier	
9	Write a program to implement Decision Tree Algorithm	
10	Write a program to implement k-Nearest Neighbours	
11	Write a program to implement k-means algorithm	
12	Write a Program to implement Principal Component Analysis for dimensionality reduction	
13	Write programs to Implement the Perceptron Algorithm Write a program to implement the Backpropagation Algorithm	

Program 1 & 2

Introduction to Python

AIM: Brief introduction about fundamentals of Python programming to make student familiarize with basic building blocks of Python.

Includes the basics of the following:

- Input/Output
- Basic data structures
- If-Else paradigm
- While loop
- For loop
- Operators
- Bitwise operations
- String operations

Program 3

Program to implement hill climbing search algorithm.

AIM: Write a Python code to implement Hill Climbing Search Algorithm specifically to solve Travelling salesman problem.

Program 4

A* Search Algorithm

AIM: Write a Python code to implement A* Search Algorithm specifically to solve 3X3- 8 Puzzle problem.

Program 5

Constraint Satisfaction Problem

AIM: Write a Python code to solve some algebraic relations using constraint satisfaction.