

CS 6301 - Machine Learning Lab

Date: 21.03.22

Instructions:

1. For exercises and spot you write the results obtained, plots and inferences (what do u understand from the results).
2. Write your own functions (instead of packages) for the algorithms to get full mark.

Week4:

1. Linear Regression

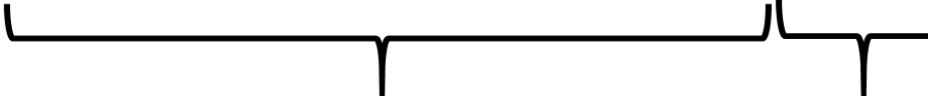
The following example describes the expenditure (in dollars) on recreation per month by employees at a certain company, and their corresponding monthly incomes. Calculate linear regression for the given data and plot the results.

Expenditure(\$)	Income (\$)
2400	41200
2650	50100
2350	52000
4950	66000
3100	44500
2500	37700
5106	73500
3100	37500
2900	56700
1750	35600

2. Find S algorithm

Implement Find S algorithm for the following data

EXAMPLE	COLOR	TOUGHNESS	FUNGUS	APPEARANCE	POISONOUS
1.	GREEN	HARD	NO	WRINKLED	YES
2.	GREEN	HARD	YES	SMOOTH	NO
3.	BROWN	SOFT	NO	WRINKLED	NO
4.	ORANGE	HARD	NO	WRINKLED	YES
5.	GREEN	SOFT	YES	SMOOTH	YES
6.	GREEN	HARD	YES	WRINKLED	YES
7.	ORANGE	HARD	NO	WRINKLED	YES


ATTRIBUTES ON WHICH THE CONCEPT DEPENDS ON **CONCEPT**

3. Candidate Elimination Algorithm

Test your algorithm with the following data

Japan	Honda	Blue	1980	Economy	Yes
Japan	Toyota	Green	1970	Sports	No
Japan	Toyota	Blue	1990	Economy	Yes
USA	Chrysler	Red	1980	Economy	No
Japan	Honda	White	1980	Economy	Yes