

CS 6301 - Machine Learning Lab

Date: 27.03.22 Week4:

Spot question

1. Train a single layer perceptron to classify whether a fruit presented to the perceptron is going to be liked by a certain person or not, based on three features attributed to the presented fruit: its taste (whether it is sweet or not), its seeds (whether they are edible or not) and its skin (whether it is edible or not). Consider the following table for the inputs and the target output of the perceptron. Since there are three (binary) input values (taste, seeds and skin) and one (binary) target output, construct a single-layer perceptron with three inputs and one output.

Fruit	Perceptron input (features of the fruit)			Target output person likes = 1, doesn't like = 0
	Taste sweet = 1, not sweet = 0	Seeds edible = 1, not edible = 0	Skin edible = 1, not edible = 0	
Banana	1	1	0	1
Pear	1	0	1	1
Lemon	0	0	0	0
Strawberry	1	1	1	1
Green apple	0	0	1	0