Hakkı Selim Öztürk
2013401027

21.12.18

EE 573 Pattern Recognition – HW4
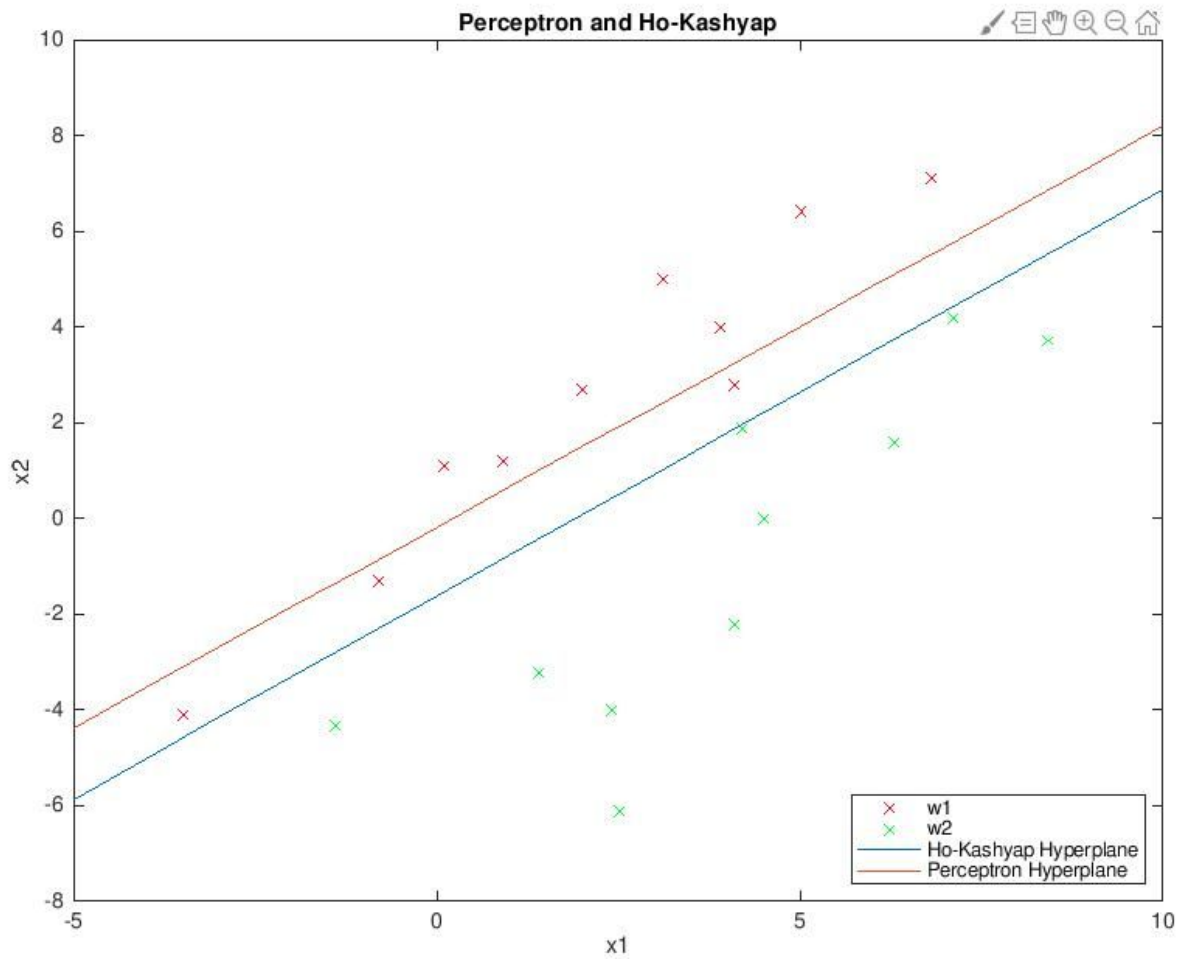
Single Sample Perceptron

	Precision	Recall
w1	1	0.6
w2	0.71	1

Ho-Kashyap

	Precision	Recall
w1	1	1
w2	1	1

Comments

They both find a separating hyperplane in the linearly separable case.

However, Ho-Kashyap always converges while perceptron does not converge in the non-separable case.

Perceptron only looks at the misclassified samples. It is not guaranteed to stop at a good point.

Ho-Kashyap converts the problem to an easier and better understood one. It considers all the samples and minimize the error. Although it is more costly, it has better performance than perceptron on this dataset.