

Chapter 1

Training Simple Machine Learning Algorithms for Classification

1.1 Implementing a perceptron learning algorithm in Python

1.1.1 An object-oriented perceptron API

If all the weights are initialized to zero, the learning rate parameter, η , affects only the scale of the weight vector, not the direction. Consider a vector, $v_1 = [1 \ 2 \ 3]$, where the angle between v_1 and a vector, $v_2 = 0.5 \times v_1$, would be exactly zero.