

Assignment 8

Consider the Iris dataset with sepal length and sepal width as the attributes, and Iris-Setosa as class c_1 , and the other two Iris types as class c_2 . There are $n_1 = 50$ points in c_1 and $n_2 = 100$ points in c_2 .

- A. Find the optimal linear discriminant vector \mathbf{w} for separating the class c_1 and c_2
- B. Plot the data points of c_1 (as circles) and c_2 (as triangles) along with the optimal discriminant vector.
- C. After learning the \mathbf{w} , predict the class of a test flower with sepal length 0.32 and sepal width 0.62. (units of measurement are same as used in Iris dataset).