1. Machine Learning Algorithms Pseudocode

Algorithm 1 k-Nearest Neighbor

Input: X: training data, Y:Class labels of X, x: unknown sample
Input: Class with the highest number of occurrence

function CLASSIFY(X, Y, x)
    for $i = 1$ to m **do**
        Compute distance $d(X_i, x)$
    end for
    Compute set I containing indices for the k smallest distances $d(X_i, x)$
    Return majority label $\{Y_i$ where $i \in I\}$
end function