Algorithmic Coding Problems Practice

# k-th nearest neighbors

Problem statement:

We are given a training dataset of points as two dimensional ndarray : data. We are given an array of labels: labels which is 1d ndarray. Each label value is assigned to a datapoint from the training dataset.

Design and implement a class KNearestNeighbors which contain constructor and two methods – train and predict. The constructor accepts a single argument which is the number k of nearest neighbors. The train method accepts two arguments – an array of data points X and an array of labels y. The method predict accepts a datapoint and returns a label which corresponds to that datapoint.

class KNearestNeighbors:

def \_\_init\_\_(self, k: int, metric=”euclidean”):

self.\_k = k

self.\_metric = metric

def train(self, data, labels):

def predict(self, point):