

Retrieving Nearest Neighbors

Retrieving Nearest Neighbors with KNN

Function Signature

```
def classify_neighbors(self, query_point):
```

Parameters

- **query_point**: The point for which the nearest neighbors are to be determined.

Return Value

Returns the indices of the `k` nearest neighbors to the `query_point` based on the stored values in the KNN instance.

Description

The `classify_neighbors` function retrieves the indices of the `k` nearest neighbors for a given `query_point` based on the stored values in the KNN instance.

It's important to note that the `store_vals` function must be called prior to using the `classify_neighbors` function to ensure that the necessary values are stored in the KNN instance.

Examples

```
from deeprai.models import KNN

# Sample data
x_vals = [[1, 2], [2, 3], [3, 4]]
y_vals = [0, 1, 0]
query_point = [2, 2]

# Create an instance of the classifier
classifier = KNN()

# Store the values in the classifier
classifier.store_vals(x_vals, y_vals, p=3, k=2)

# Retrieve the nearest neighbors of the query_point
neighbors = classifier.classify_neighbors(query_point)
print(f"The indices of the nearest neighbors to the query point are: {neighbors}")
```

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