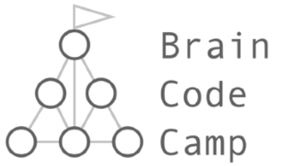

K Nearest Neighbors (k-NN)

Itthi Chatnuntawech

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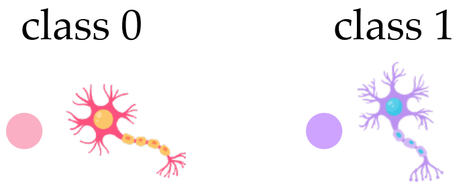
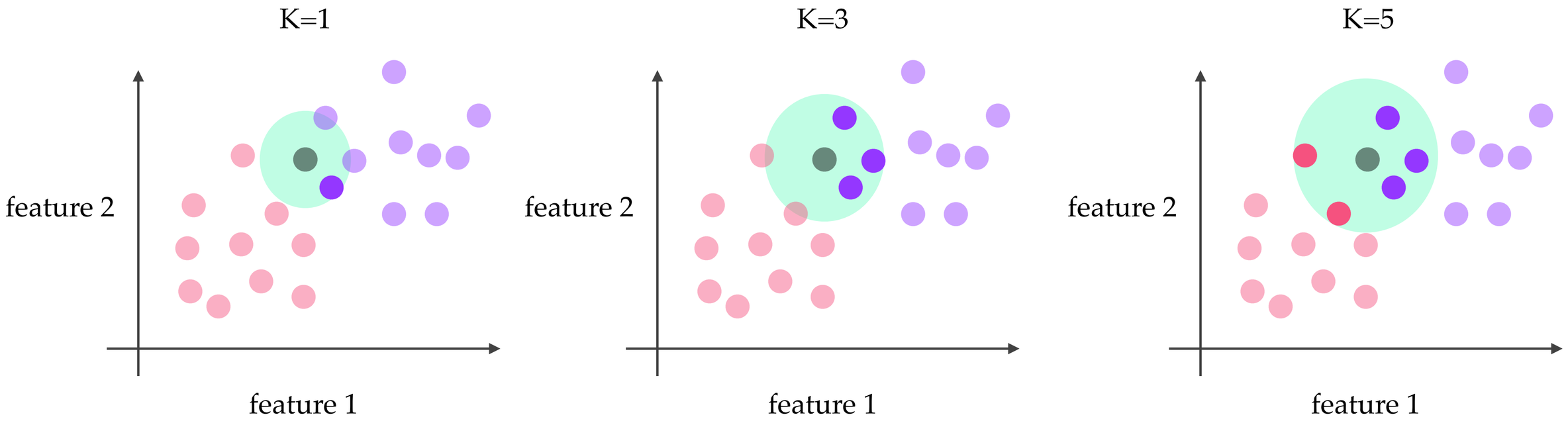
K Nearest Neighbors





In these examples, the Euclidean distance is used

K Nearest Neighbors

sklearn.neighbors.KNeighborsClassifier ¶

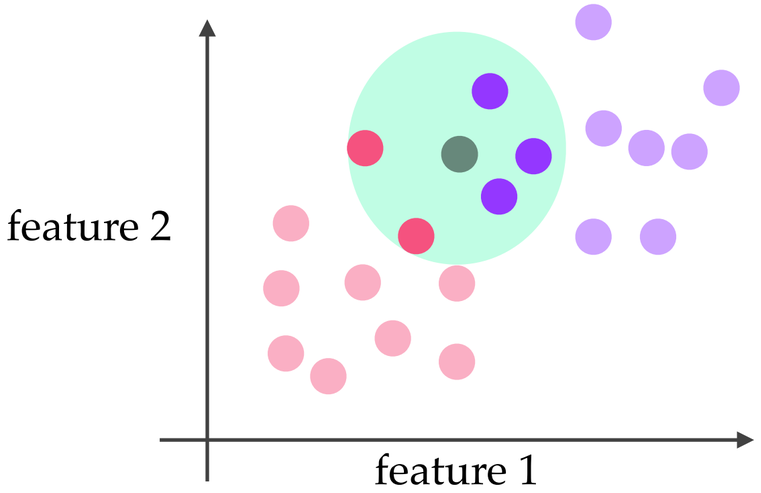
class `sklearn.neighbors.`**`KNeighborsClassifier`**(*n_neighbors=5, *, weights='uniform', algorithm='auto', leaf_size=30, p=2, metric='minkowski', metric_params=None, n_jobs=None*) [source]

Metric used to compute distances

Algorithm used to (approx.) compute the nearest neighbors (e.g., k-d tree and ball tree).

K=5, weights = 'uniform'

metric = 'minkowski' with p=2



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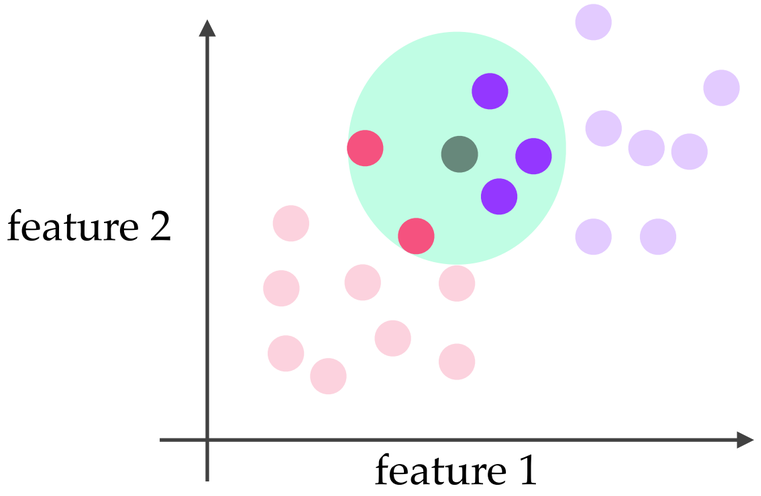
K Nearest Neighbors

sklearn.neighbors.KNeighborsClassifier ¶

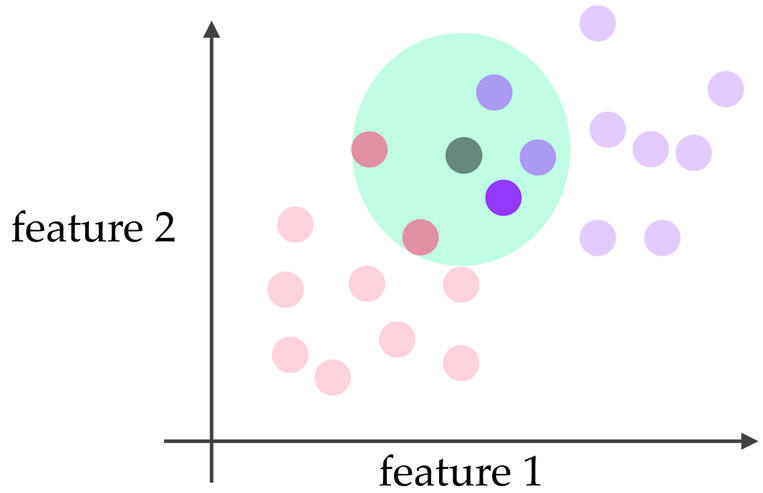
class `sklearn.neighbors.`**`KNeighborsClassifier`**(*n_neighbors=5, *, weights='uniform', algorithm='auto', leaf_size=30, p=2, metric='minkowski', metric_params=None, n_jobs=None*) [source]

How the contribution from each neighbor is assigned

K=5, weights = 'uniform'
metric = 'minkowski' with p=2



K=5, weights = 'distance'
metric = 'minkowski' with p=2



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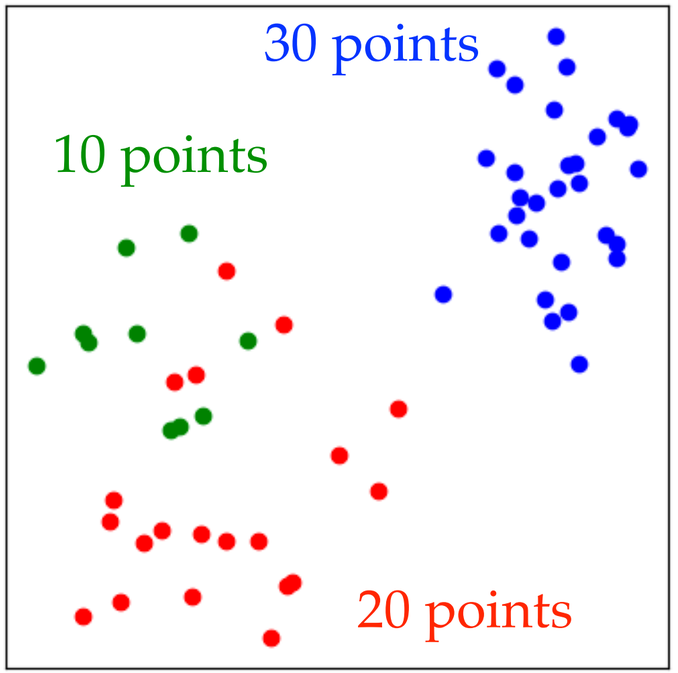
K Nearest Neighbors



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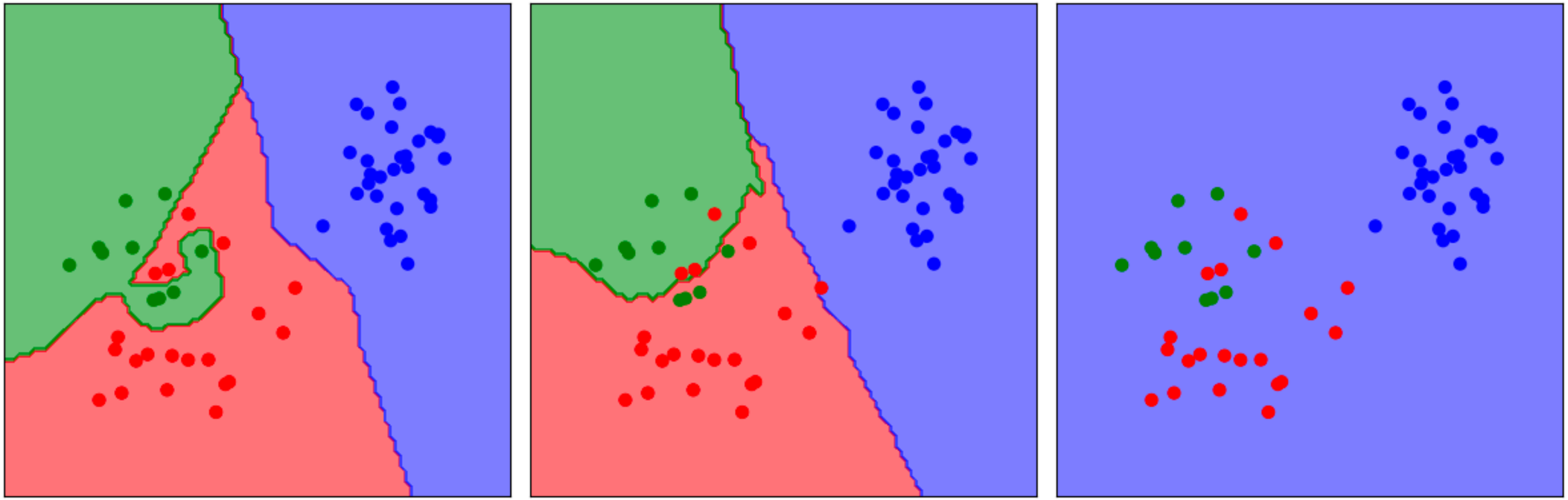
K Nearest Neighbors

10 points
20 points
30 points

K=1 K=15 K=60



K controls the degree of smoothing