sklearn.cluster.KMeans

class `sklearn.cluster.KMeans`(*n_clusters=8*, ***, *init='k-means++'*, *n_init=10*, *max_iter=300*, *tol=0.0001*, *verbose=0*, *random_state=None*, *copy_x=True*, *algorithm='lloyd'*) [source]

K-Means clustering.

Read more in the User Guide.

Parameters:

n_clusters : *int, default=8*

The number of clusters to form as well as the number of centroids to generate.

init : *{'k-means++', 'random'}, callable or array-like of shape (n_clusters, n_features), default='k-means++'*

Method for initialization:

'k-means++' : selects initial cluster centers for k-mean clustering in a smart way to speed up convergence. See section Notes in k_init for more details.

'random': choose `n_clusters` observations (rows) at random from data for the initial centroids.

If an array is passed, it should be of shape (n_clusters, n_features) and gives the initial centers.

KMeans_rcpp {ClusterR}

k-means using RcppArmadillo

Description

k-means using RcppArmadillo

Usage

```
KMeans_rcpp(
  data,
  clusters,
  num_init = 1,
  max_iters = 100,
  initializer = "kmeans++",
  fuzzy = FALSE,
  verbose = FALSE,
  CENTROIDS = NULL,
  tol = 1e-04,
  tol_optimal_init = 0.3,
  seed = 1
)
```