

Complete Clustering Algorithm Taxonomy

Clustering Algorithm Taxonomy

Clustering Algorithms

- Centroid-Based
 - K-means (spherical clusters)
 - K-medoids (robust to outliers)
 - Fuzzy C-means (soft assignments)
- Density-Based
 - DBSCAN (epsilon neighborhoods)
 - OPTICS (varying densities)
 - Mean-shift (mode seeking)
- Hierarchical
 - Agglomerative (bottom-up)
 - Single linkage
 - Complete linkage
 - Average linkage
 - Ward linkage
 - Divisive (top-down)
- Graph-Based
 - Spectral clustering
 - Community detection
- Model-Based
 - Gaussian Mixture Models
 - Hidden Markov Models
 - Deep clustering