



یادگیری ماشین

(Clustering)

محمد دهقانی

data-hub

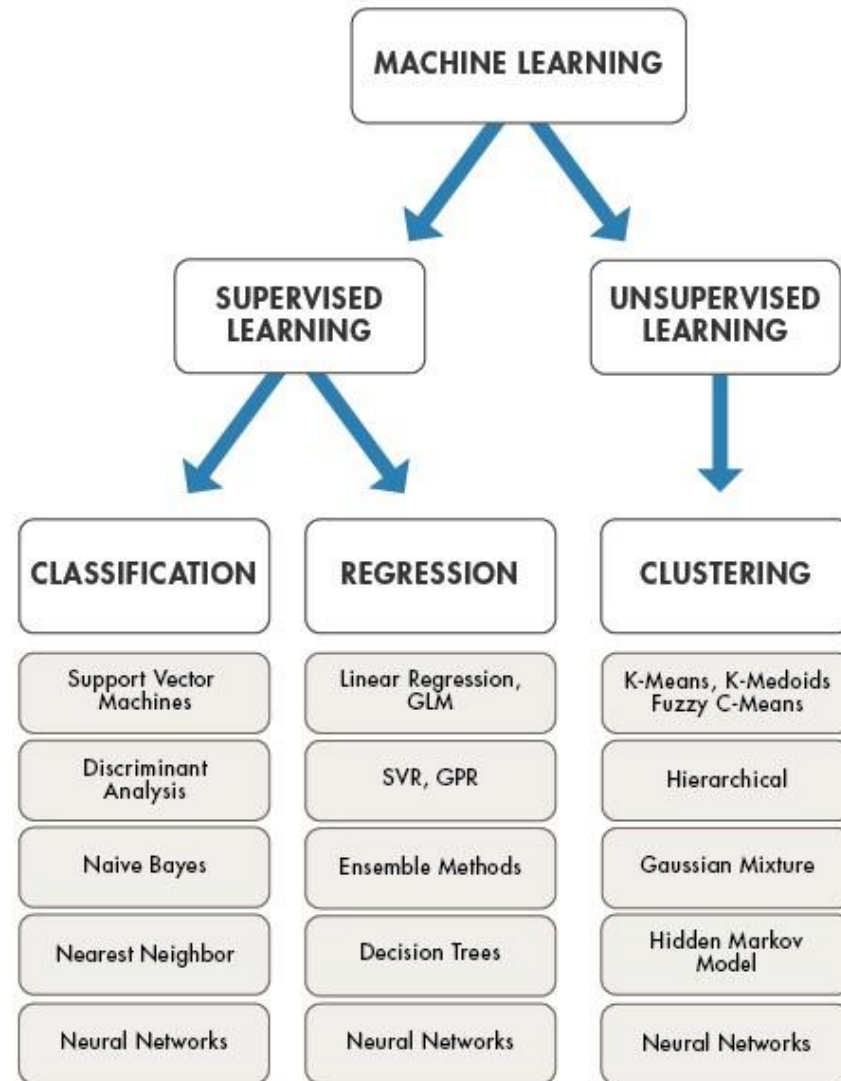
آنچه در این جلسه یاد خواهیم گرفت:

۱. بررسی Clustering

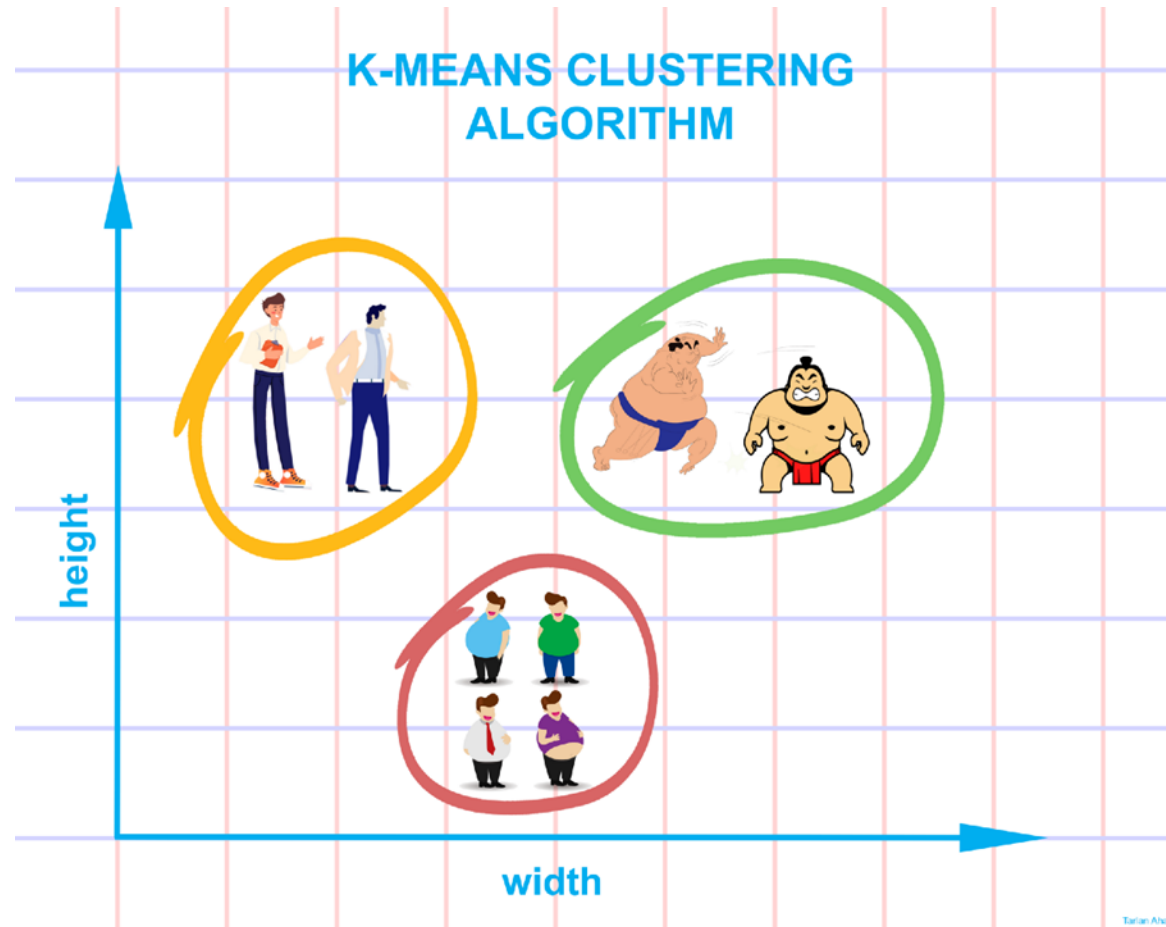
۲. بررسی کاربردهای مختلف خوشه بندی

۳. پیاده سازی

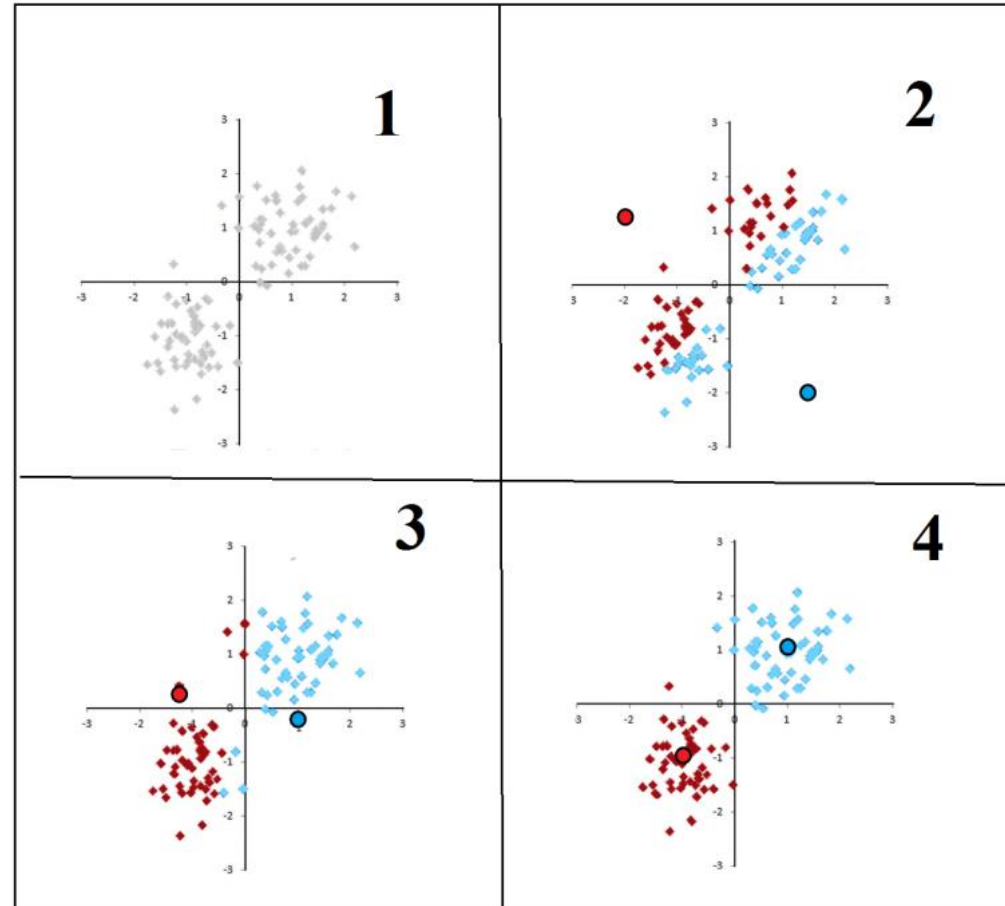
یادگیری ماشین



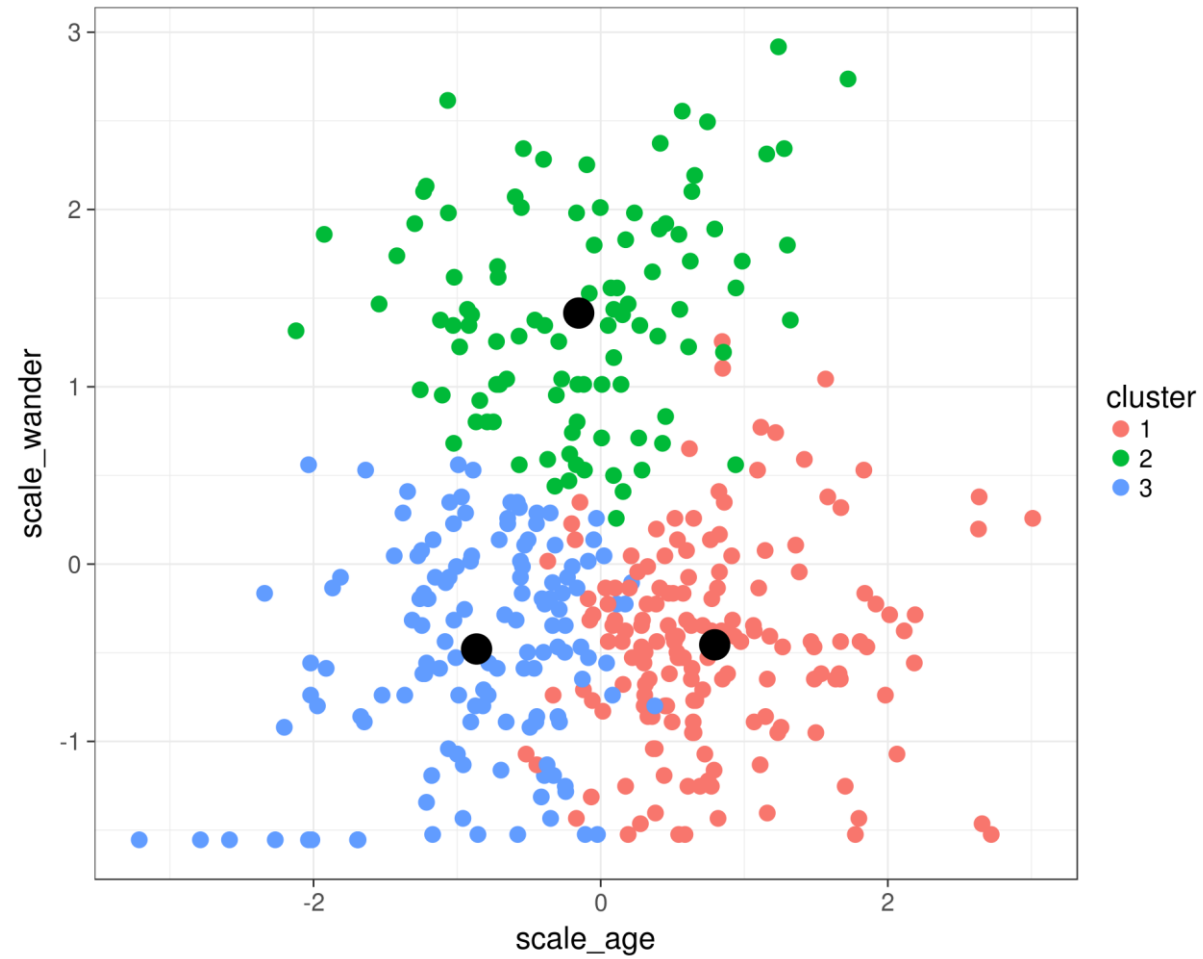
Clustering



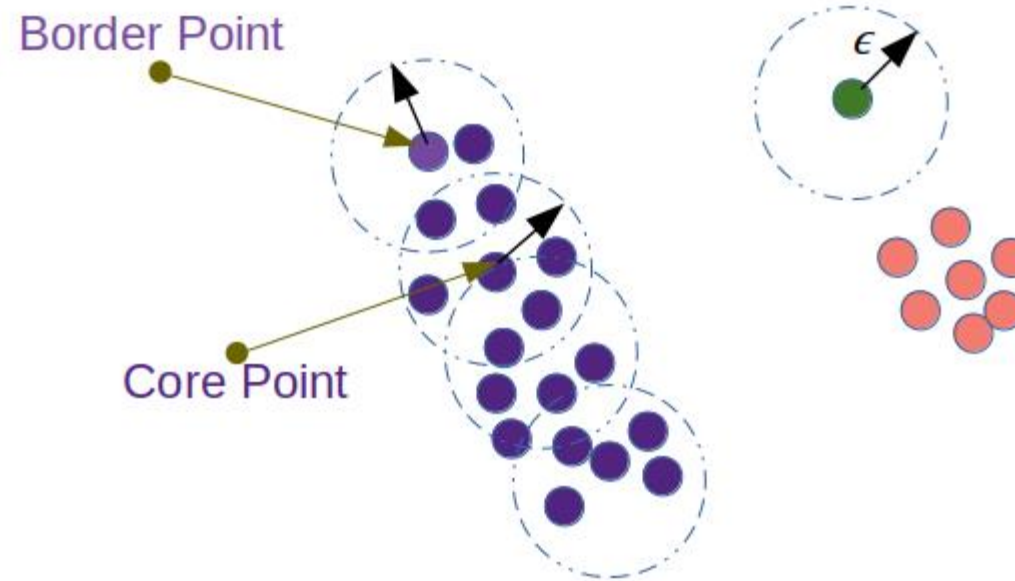
K-Means



K-Means



DBSCAN



$$N_{\epsilon}(p) = \{q \in D \text{ such that } \text{dist}(p, q) \leq \epsilon\}$$

$\epsilon = 1$ unit, MinPts = 7

DBSCAN

DBSCAN looks for densely packed observations and makes no assumptions about the number or shape of clusters.

1. A random observation, x_i , is selected
2. If x_i has a minimum of close neighbors, we consider it part of a cluster.
3. Step 2 is repeated recursively for all of x_i 's neighbors, then neighbors' neighbors etc... These are the cluster's core members.
4. Once Step 3 runs out of observations, a new random point is chosen.

Afterwards, observations not part of a core are assigned to a nearby cluster or marked as outliers.

Chris Albon

DBSCAN

DBSCAN



k-means



#DONTFORGETUS

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رایگان بیشتر

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