Curated External Resources - Unsupervised Learning

These are curated external links to articles, and videos, that provide an opportunity to augment the learning, provided by the live lecture, on various clustering algorithms.

- **K-Means Algorithm:** This is a centroid-based clustering algorithm that tries to minimize the distance of the points within a cluster with their centroid. To know more about the K-Means clustering, its applications, and its implementation in python, please refer to this article. https://www.analyticsvidhya.com/blog/2019/08/comprehensive-guide-k-means-clustering/
- **K-Medoids (PAM) Algorithm:** This is an alternative to K-Means clustering which focuses on the drawbacks of K Means. It is robust to outliers. To know more about the algorithm, please refer to this video. https://youtu.be/GApaAnGx3Fw
- **GMM Clustering:** This algorithm assumes that there are some Gaussian distributions and each of them represents a cluster. It also tries to overcome the drawbacks of K-Means. To know more about GMM clustering and its implementation in python, please refer to this article. https://www.analyticsvidhya.com/blog/2019/10/gaussian-mixture-models-clustering/
- **Hierarchical Clustering:** This algorithm creates clusters in an ordered manner i.e. top to bottom or bottom to top. It groups similar objects into clusters. To know more about the Hierarchical clustering algorithm and its implementation in python, please refer to this article. https://www.kdnuggets.com/2019/09/hierarchical-clustering.html
- **DBSCAN:** This is a density-based clustering algorithm that aims to create clusters based on the density of a region. It is very robust to outliers. To know more about the DBSCAN algorithm and its implementation in python, please refer to this article. https://www.kdnuggets.com/2020/04/dbscan-clustering-algorithm-machine-learning.html

Happy Learning!

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