References

[1] "Data clustering: A review", A. K. Jain, M.N. Murty, P. J. Flynn. Available:
https://dl.acm.org/doi/abs/10.1145/331499.331504

[2] "2.3.1. Overview of clustering methods", Scikit-learn. Available:
https://training.galaxyproject.org/training-material/topics/statistics/tutorials/clusteringmachinelearning/tutorial.html

[3] George Seif, "The 5 clustering algorithms data scientists need to know". Available:
https://towardsdatascience.com/the-5-clustering-algorithms-data-scientists-need-to-know-a36d136ef68

[4] https://datadrivencompany.de/was− ist−clustering−def inition−methoden−und−beispiele/

[5] https://www.google.com/search?q = warum+clusteringrlz = 1CAGMMRenDE914sxsrf =
ALeKk03sV j498twnpa3E0mlvIU7ZaT4

[6]https://www.google.com/search?q=task+of+clustering+is+subjectiverlz=1CAGMMRenDE914sxsrf

[7] Dr. Kilian Semmelmann, "Was ist Clustering? Definition, Methoden und Beispiele".
Available:
https://datadrivencompany.de/was-ist-clustering-definition-methoden-und-beispiele/

[7.1] "Overview of clustering methods", Scikit learn. Available:
https://scikit-learn.org/stable/modules/clustering.html

[8] Cory Maklin, "BIRCH Clustering Algorithm Example In Python". Available:
https://towardsdatascience.com/machine-learning-birch-clustering-algorithm-clearly-explained-fb9838cbeed9

[9] Mikayla Bashirian, "BIRCH Clustering Clearly Explained". Available:
https://morioh.com/p/c23e0d680669

[10] "ML | BIRCH Clustering", GeeksforGeeks. Available:
https://www.geeksforgeeks.org/ml-birch-clustering/

[11] "BIRCH algorithm with example", Ques10. Available:
https://www.ques10.com/p/9298/explain-birch-algorithm-with-example/

[12] "Dichteverbundenes Clustern", TU München. Available:

https://www-m9.ma.tum.de/material/felix-klein/clustering/Methoden/Dichteverbundenes_Clustern.php

[13] S. Luber, „bigdata-insider," 2018. [Online]. Available:
   https://www.bigdata-insider.de/was-ist-der-k-means-algorithmus-a-734637/

[14] V. Lavrenko, „Youtube," 2014. [Online]. Available:
   https://www.youtube.com/watch?v=_aWzGGNrcic

[15] H. S. Bisht, „geeksforgeeks.org," [Online]. Available:
   https://www.geeksforgeeks.org/what-is-image-blurring/

[16]: Chris Piech, "K Means". Available:
https://stanford.edu/~cpiech/cs221/handouts/kmeans.html

[17] P. Fränti and S. Sieranoja, "K-means properties on six clustering benchmark datasets

Applied Intelligence", 48 (12), 4743-4759, December 2018. Available:
\\http://cs.joensuu.fi/sipu/datasets/

[18] Anil K. Jain and Martin H.C. Law, "Data Clustering: A User's Dilemma". Available:
   \\https://link.springer.com/content/pdf/10.1007%2F11590316_1.pdf

[19]"Definition data set", TechTarget Contributor. Available:
https://whatis.techtarget.com/definition/data-set

[20] P. Fränti and S. Sieranoja, "K-means properties on six clustering benchmark datasets
Applied Intelligence", 48 (12), 4743-4759, December 2018. Available:
http://cs.joensuu.fi/sipu/datasets/

[22] Matplotlib. Available: https://pypi.org/project/matplotlib

[23]   Matplotlib. Available: https://matplotlib.org/stable/api/_as_gen/matplotlib.pyplot.htm

[24] Seaborn. Available:https://seaborn.pydata.org/

[25] Scikitlearn. Available: https://www.codecademy.com/articles/scikit-learn

[26] Numpy. Available: https://numpy.org/doc/stable/user/whatisnumpy.html

[27] Pandas. Available: https://pandas.pydata.org/

[28] "User guide", Pandas. Available:
   https://pandas.pydata.org/pandas-docs/stable/user_guide/index.html

[29] "ML|BIRCH Clustering", GeeksforGeeks. Available:
https://www.geeksforgeeks.org/ml-birch-clustering/

[31] Ashutosh Bhardwaj, "Silhouette Coefficient". Available:
   https://towardsdatascience.com/silhouette-coefficient-validating-clustering-techniques-e976bb81d10c

[32] "Evaluation of Clustering", Cambridge University Press. Available:
    https://nlp.stanford.edu/IR-book/html/htmledition/evaluation-of-clustering-1.html

[33] Imad Dabbura, "K-means Clustering". Available:

https://towardsdatascience.com/k-means-clustering-algorithm-applications-evaluation-metho
    ds-and-drawbacks-aa03e644b48a