

K-Means Clustering of Countries Based on Population Growth and Agricultural Land

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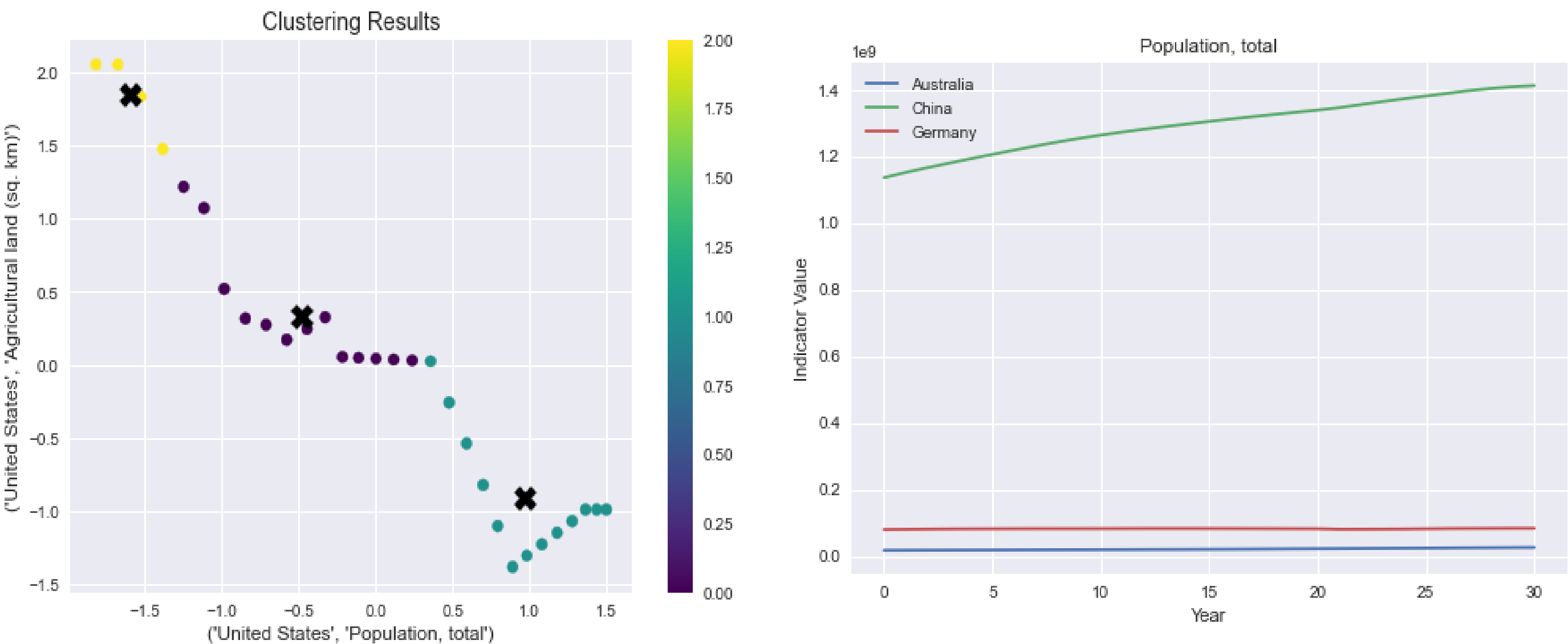
Report Link: <https://github.com/Vasanthkumar09/Clustering-and-fitting>

Abstract:

This report uses k-means clustering to group four countries – united states, Germany, China, Australia - based on two indicators: population growth and agricultural land. The results show that the countries can be clustered into two groups based on their population growth and agricultural land. Cluster 0 consists of the, Germany& Australia, which have lower population growth rates and lower percentages of agricultural land compared to Cluster 1, which consists of China and united states.

Introduction:

K-means clustering is a popular unsupervised machine learning algorithm that is used to group similar data points together. A k-means algorithm is used to cluster countries based on two indicators: population growth and agricultural land. Specifically, clustering of four countries - united states, Germany, China, Australia. Population growth refers to the increase in the number of individuals in a population over time. Agricultural land, on the other hand, refers to the percentage of a country's land area that is used for agriculture. These two indicators provide insights into a country's development and economic activity. Scikit-learn library in Python is used to perform the k-means clustering.



Conclusion:

The k-means clustering of the four countries based on population growth and agricultural land resulted in two clusters: the Germany& Australia in Cluster 0, and China and united states. in Cluster 1. The clustering can be interpreted in various ways, but it suggests a possible relationship between a country's level of development, population growth, and reliance on agriculture.