Abstract

This work presents a hybrid approach for unsupervised algorithms (UHA), in order to extract information and patterns from data concerning terrorist attacks. The reference data are those of the Global Terrorism Database. The work presents an approach based on autoencoders and k-modes type clustering. The results obtained are examined through some metrics presented in the article and it is also considered methodologically how to determine a robust threshold for anomaly detection problems.

References

Learning Approach”, Working Paper, November 2017
10. Skillicorn, D.B., Leuprecht, C., "Clustering Heterogeneous Semi-Structured Social Science Datasets”, Procedia Computer Science Volume 51, 2015, Pages 29082912
11. Huang, Z., "Extensions to the k-Means Algorithm for Clustering Large Data Sets with Categorical Values”, Data Mining and Knowledge Discovery 2, 283304 (1998)
12. Huang, Z., "Clustering large data sets with mixed numeric and categorical values”, Proceedings of the First Pacific Asia Knowledge Discovery and Data Mining Conference, Singapore, pp. 21-34, 1997

**Index Terms**

Computer Science  
Algorithms
Keywords

Terrorism, Unsupervised Learning, Clustering, Autoencoders, Optimization