Review of: "A Novel Framework for Concept Drift Detection using Autoencoders for Classification Problems in Data Streams"

Zhenguo Zhang[1]

1 Yanbian University

Potential competing interests: No potential competing interests to declare.

Aiming at the problems existing in unsupervised drift detection methods the authors proposed Autoencoder-based Drift Detection Method (AE-DDM).

Contributions

1.The authors proposed a novel framework for unsupervised drift detection based on the deep learning autoencoder technology.
2.A brief comparison of available drift detection approaches with proposed properties of an ideal drift detector
3.A synthetic Gaussian dataset for drift detection is created and the counting threshold is combined with the batch threshold to counter false alarms in drift detection.

Cons:

1.Only some of the earlier baselines were compared in experiments, and the latest baseline NLinear is published in 2022. It is necessary to compare with the recent work.
2.The experiments in Section 4.1 did not explore the influence of different number of layers and input dimensions for the automatic encoder.
3.Only MSE was used as an evaluation index. Why didn't consider other evaluation indexes?