SAX an innovative outlook to time-series representation

Predictive analysis on Time Series Data Sets using SAX: The potential to do predictive machine learning on the data generated by connected sensors (temperature sensor, LIDAR etc) is a feature that is driving the spread of the Internet of Things. Predictive analysis of the time series data can be used to anticipate adverse events, enable early warning systems, improve results, reduce costs and enhance efficiency.
 An Anomaly (a.k.a outlier) is simply an unusual subsequence of the series. "Unusual" can be taken as "improbable". Probability is not defined for the time series, Probability can be defined for Symbols. Mapping a time series to a symbol may allow us to assign a probability to the time series subsequence. This involves mapping the time series subsequence to a symbol in some symbol space. Key advantages of using SAX is that it yields an explainable model. Wherein the result of the model should not be underestimated. SAX is a good representation of working in raw data for most problems and representing time series data in the form of strings with a fixed-length size.
SAX is a methodology for reducing a time series window to symbols. The technique was developed by Dr Eammonn Keogh et al UC Riverside in the early 2000s. It has drawn a great deal of attention in a world of time series analysis.

Machine Learning, Internet of Things, Predictive Analysis and Time Series Representation

https://jmotif.github.io/sax-vsm_site/modules/algorithm/
https://r2s.hh.se/ReadingClub/2012-09-21/0-sax.pdf
http://www.cse.cuhk.edu.hk/~adafu/Pub/icdm05time.pdf
https://cs.gmu.edu/~jessica/sax.htm
http://www.cs.ucr.edu/~eamonn/SAX.htm
http://grammarviz2.github.io/grammarviz2_site/
https://github.com/johannfaouzi/pyts
http://www.cs.ucr.edu/~eamonn/HOT%20SAX%20%20long-ver.pdf
https://github.com/nphoff/saxpy
http://alumni.cs.ucr.edu/~ratana/SSDBM05.pdf
https://jmotif.github.io/sax-vsm_site/
https://www.cs.ucr.edu/~eamonn/discords/

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