**Title:** Explaining Time Series Downsampling

**Description:** Downsampling is a vital part of managing voluminous time series data; however, this process can lead to information loss, obscurity between the original and downsampled data, and make the outcomes of subsequent analysis potentially unexplainable. This project focuses on how best to explain the downsampling of time series data with the aim of supporting end users to understand the performance of this data type. It is likely to explore how best to take an evidenced-led approach to explaining and representing influential events in different categories of time series data, such as change points or data gaps. By enhancing the explainability and interpretability of the time series downsampling process, this project hopes to bolster the trust and confidence of data scientists and decision-makers in the selection of their downsampling approach and the outcomes derived from the downsampled time series data.