## 工具和数据集(点击链接可跳转)

[Python] <u>TODS</u>: TODS is a fullstack automated machine learning system for outlier detection on multivariate time-series data.

[Python] skyline: Skyline is a near real time anomaly detection system.

[Python] banpei: Banpei is a Python package of the anomaly detection.

[Python] <u>telemanom</u>: A framework for using LSTMs to detect anomalies in multivariate time series data.

[Python] <u>DeepADoTS</u>: A benchmarking pipeline for anomaly detection on time series data for multiple state-of-the-art deep learning methods.

[Python] <u>NAB: The Numenta Anomaly Benchmark</u>: NAB is a novel benchmark for evaluating algorithms for anomaly detection in streaming, real-time applications.

[Python] <u>CueObserve</u>: Anomaly detection on SQL data warehouses and databases.

[Python] <u>Chaos Genius</u>: ML powered analytics engine for outlier/anomaly detection and root cause analysis.

[R] <u>CRAN Task View: Anomaly Detection with R</u>: This CRAN task view contains a list of packages that can be used for anomaly detection with R.

[R] <u>AnomalyDetection</u>: AnomalyDetection is an open-source R package to detect anomalies which is robust,from a statistical standpoint, in the presence of seasonality and an underlying trend.

[R] <u>anomalize</u>: The 'anomalize' package enables a "tidy" workflow for detecting anomalies in data.