Wat.AI

Scrum Nov 19

**Regarding Scrum2:**

[How can we manually create a drift and see if ADWIN or DDM catches it first?](https://colab.research.google.com/drive/19mFe6Sd5vqKJh3rxf4eLo7SkDC-ESsz8#scrollTo=-BRMmOZdpa73)

See hyperlink for code, or manually input a dataset that we already know its drift locations, then test ADWIN vs. DDM to see whichever catches the most drifts.

1. Create controlled dataset where we know the drift instances
2. Using metrics to compare drift performances (time, false negatives, false positives, sensitivity, confusion matrix, etc.)
3. Repeat with different types of drift (gradual, sudden, recurring)

We should use Accuracy and Rolling ROCAUC (for ADWIN rolling data). Reason why you think so?

Accuracy:

* Simple
* Efficient Computation
* Applicable
* Works with incremental data

ROCAUC:

* Rolling Window approach pairs nicely with ADWIN
* Takes into account probability scores
* Handles imbalance for classification that accuracy did not handle
* Can compare different curves and find optimal ROC point

Why are we looking at MLflow in particular?

* Allows us to track drifts and metrics via log incrementally (matches with incremental ADWIN model)
* Visualization and monitoring UI
* Teamwork-friendly and cloud based (can connect to AWS)