Improvements

Implementation of additional regularization methods and data augmentation:

Conduct data augmentation by creating synthetic examples, using methods such as SMOTE for time series.

Increase the volume of data by combining additional datasets or sourcing data from other origins.

Conduct hyperparameter optimization:

Use methods like Grid Search, Random Search, or Bayesian Optimization to select optimal values.

In-depth feature analysis and engineering:

Create new features (feature engineering), including aggregating sensor data, calculating derivatives, or statistical metrics.

Apply dimensionality reduction methods, such as PCA, to reduce the number of features without losing significant information.

Apply model-ensembling by combining predictions from multiple models to enhance overall performance.