Data Streams for Remaining Useful Life Estimation
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ABSTRACT
Recent development in Cyber-Physical Systems (CPS) and smart devices have increased the availability of data streams. Building models for mining those streams is challenged by the data volume that cannot be stored in memory. However, those models are widely used for different applications. In this study, we present a model for predicting Remaining Useful Life (RUL) of data streams from the CPS. Our model can efficiently estimate the RUL using different state variables and previous states of the CPS.

CONTEXT
- The data streams in the context of CPS are generally known as Time Series (TS) given the importance of the temporal aspect
- RUL estimation is considered as one of predictive maintenance applications
- Sensors data from CPS are used to estimate RUL
- RUL estimation allows experts to schedule maintenance at the right time

RESULTS
- We used learning and testing set from turbofan engines
- The evaluation results show relevant RUL prediction compared to existing studies with MAE of 14,64

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