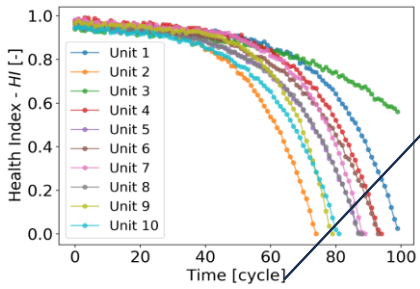
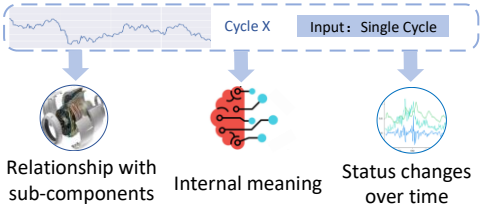
Dataset Construction and Task Partitioning



The degradation trajectory of the system

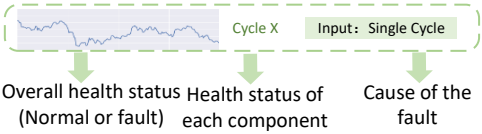
Task 1: Temporal Understanding



Hey, could you explain what the change in altitude indicates about the engine signal we're analyzing for this single cycle?

Well, the altitude is dropping steadily. What's interesting is that the engine is handling the reduced airflow demand really well, keeping its performance steady without putting any unnecessary strain on the system.

Task 2: Temporal Perception

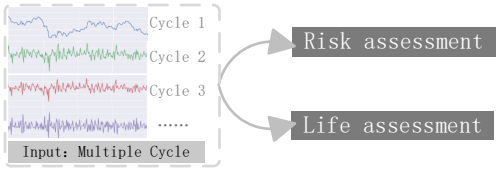


Was the timing issue in the operation of the given engine signal in one cycle caused by efficiency or flow problems?

a: HPT efficiency modifier
b: LPT efficiency modifier
c: Fan efficiency modifier
d: HPT flow modifier
e: LPT flow modifier
f: Fan flow modifier

a: HPT efficiency modifier

Task 3: Temporal Reasoning

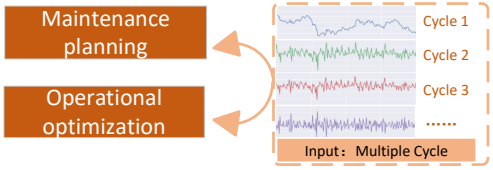


What is the probability of failure of the given engine signal across 10 cycles?

A: 1% -10%
B: 10%-30%
C: 30%-50%
D: 50%-70%
E: 70%-100%

C: 30%-50%

Task 4: Temporal Decision-Making



Based on the engine signal data collected over 10 cycles, what immediate actions should be taken to address the observed issues?

It is critical to perform necessary repairs or replace the affected components as soon as possible to ensure the engine's continued safe and efficient operation.