

Common Features in Stream Processing Frameworks

Hong-Linh Truong
Department of Computer Science
<u>linh.truong@aalto.fi</u>, <u>https://rdsea.github.io</u>

Apache Flink

Stream API

- https://ci.apache.org/projects/flink/flink-docs-stable/dev/datastream_api.html
- Input/Output Connectors (data sources/sinks)
 - https://ci.apache.org/projects/flink/flink-docs-release-1.9/dev/connectors/
- Time handling
 - https://ci.apache.org/projects/flink/flink-docs-release-1.9/dev/event_time.html
- Windows
 - https://ci.apache.org/projects/flink/flink-docsstable/dev/stream/operators/windows.html



Apache Spark

Main doc

- https://spark.apache.org/streaming/
- https://spark.apache.org/docs/latest/streaming-programmingguide.html
 - Check Window Operations for windowing
- https://spark.apache.org/docs/latest/structured-streamingprogramming-guide.html



Apache Storm

Windows

https://storm.apache.org/releases/2.1.0/Windowing.html

Stream API

https://storm.apache.org/releases/2.1.0/Stream-API.html

Spout and Bolt API

https://storm.apache.org/releases/2.1.0/Tutorial.html



Azure Stream Analytics

Windows function:

 https://docs.microsoft.com/en-us/azure/stream-analytics/streamanalytics-window-functions

Time handling

 https://docs.microsoft.com/en-us/azure/stream-analytics/streamanalytics-time-handling

Delivery guarantees

 https://docs.microsoft.com/en-us/stream-analytics-query/eventdelivery-guarantees-azure-stream-analytics



Kafka Streams

Main development documents

- https://kafka.apache.org/documentation/streams/
- https://kafka.apache.org/23/documentation/streams/core-concepts
- https://kafka.apache.org/23/documentation/streams/developer-guide/
- https://kafka.apache.org/23/documentation/streams/developer-guide/dsl-api.html

Windows

 https://kafka.apache.org/23/documentation/streams/developer-guide/dslapi.html#windowing



Thanks!

Hong-Linh Truong
Department of Computer Science

rdsea.github.io