

A hand holding a lit sparkler over water at night. The background is a dark blue sky with some light clouds. The water is dark blue with some ripples. The sparkler is lit and is creating a large burst of sparks that are glowing orange and yellow. The hand is holding the sparkler by the handle, which is dark and appears to be made of wood or plastic. The hand is positioned in the center of the frame, with the arm extending upwards from the water. The water is dark blue and has some ripples. The sky is dark blue and has some light clouds. The overall scene is a celebratory one, suggesting a successful outcome or achievement.

Water Consumption Prediction

with Apache Spark and Hadoop

Scalable Computing

University of Groningen

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- Chriss Santi
- Jarvin Mutatiina
- Hilary Oodo

Algorithm & Data

Data

The Netherlands weather data is provided by the public service KNMI www.knmi.nl

We used Temperature column distribution to generate water usage.

Batch and Stream

Split for

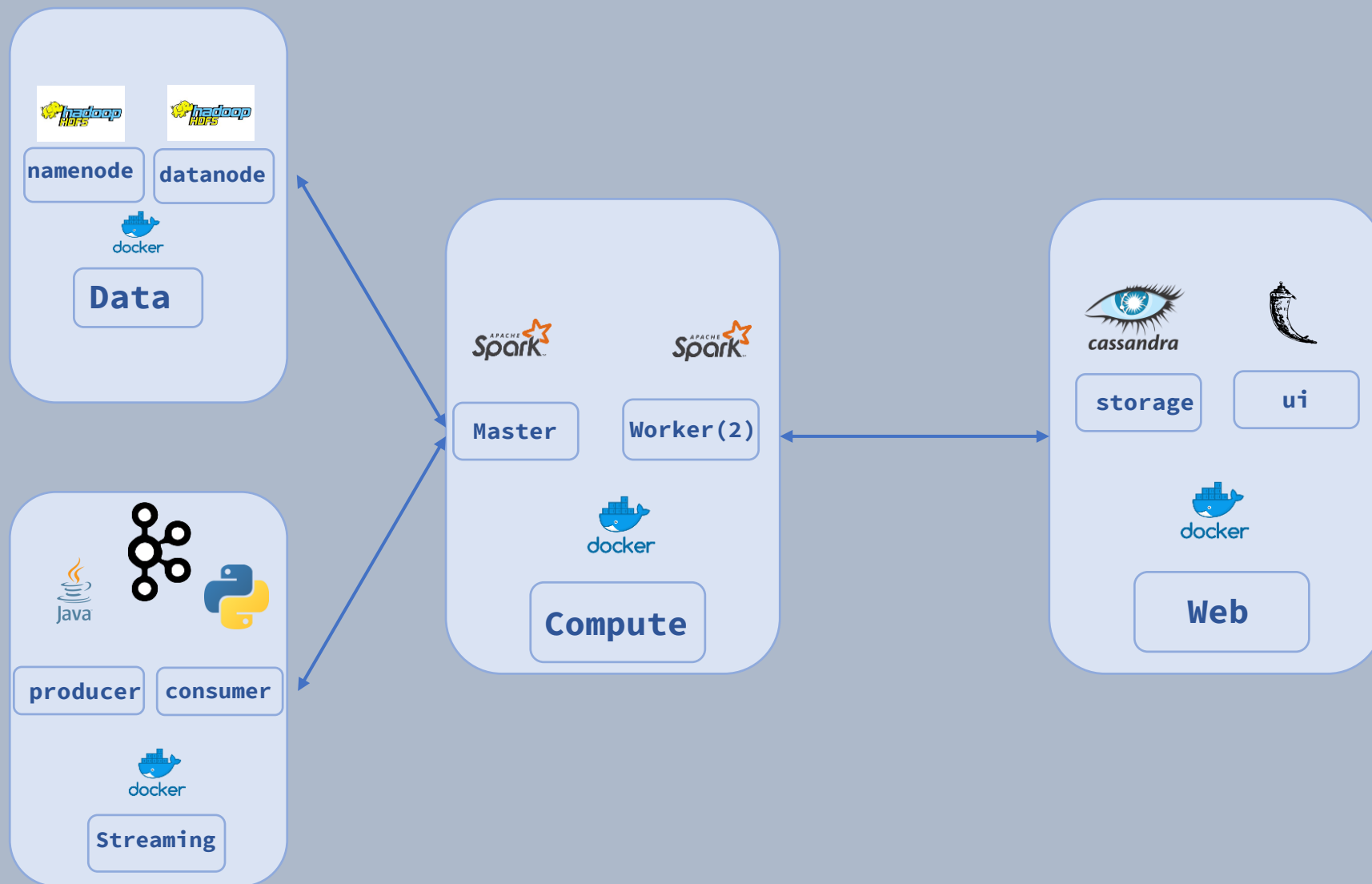
- Batch
- Streaming

Model

- Pre-processing
- Regression model fitting (Spark)
- Model saving (HDFS)

Prediction

- Model fetching
- Prediction
- Saving results (Cassandra)



scac-network-2019 (docker bridge network)

Architecture

We design our architecture in a way to increase the **scalability** of the components

We increase the **availability** of computing resources by using 2 workers

Kappa (single time computing)

Technologies

