Stream Analysis of Incoming Events Using Different Data Analysis Methods

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Trends app | Trends 1 | Statistics | Settings

Options

Data source

Trend detection method

Forecasting

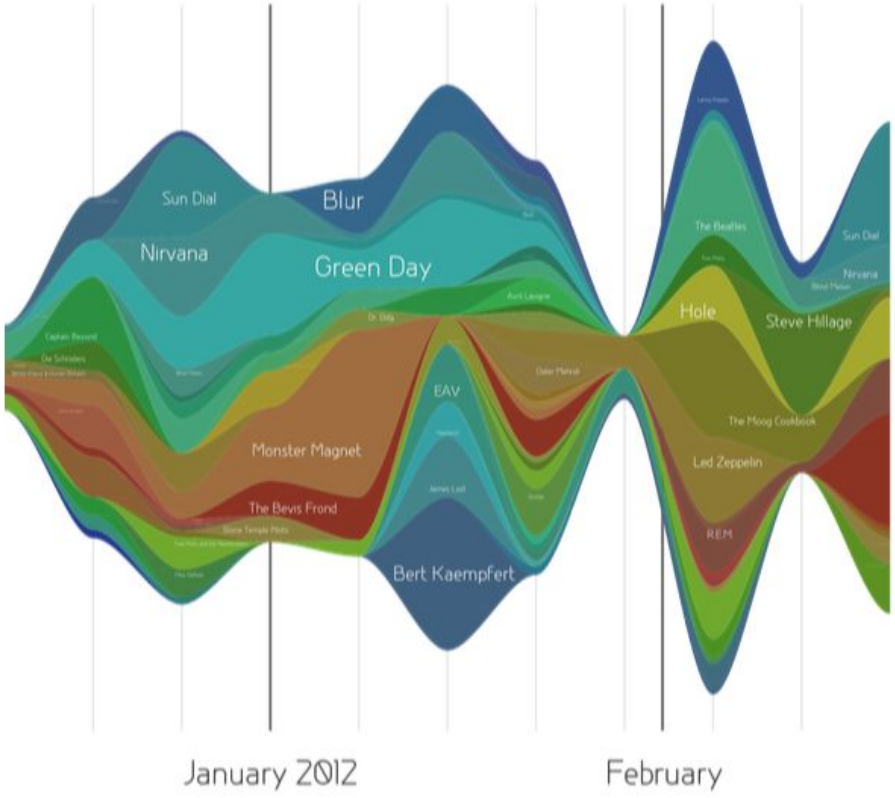
Run

Trends cloud

The Bevis Frond
Hole
Nirvana
Green Day
Avril
Monsters magnet

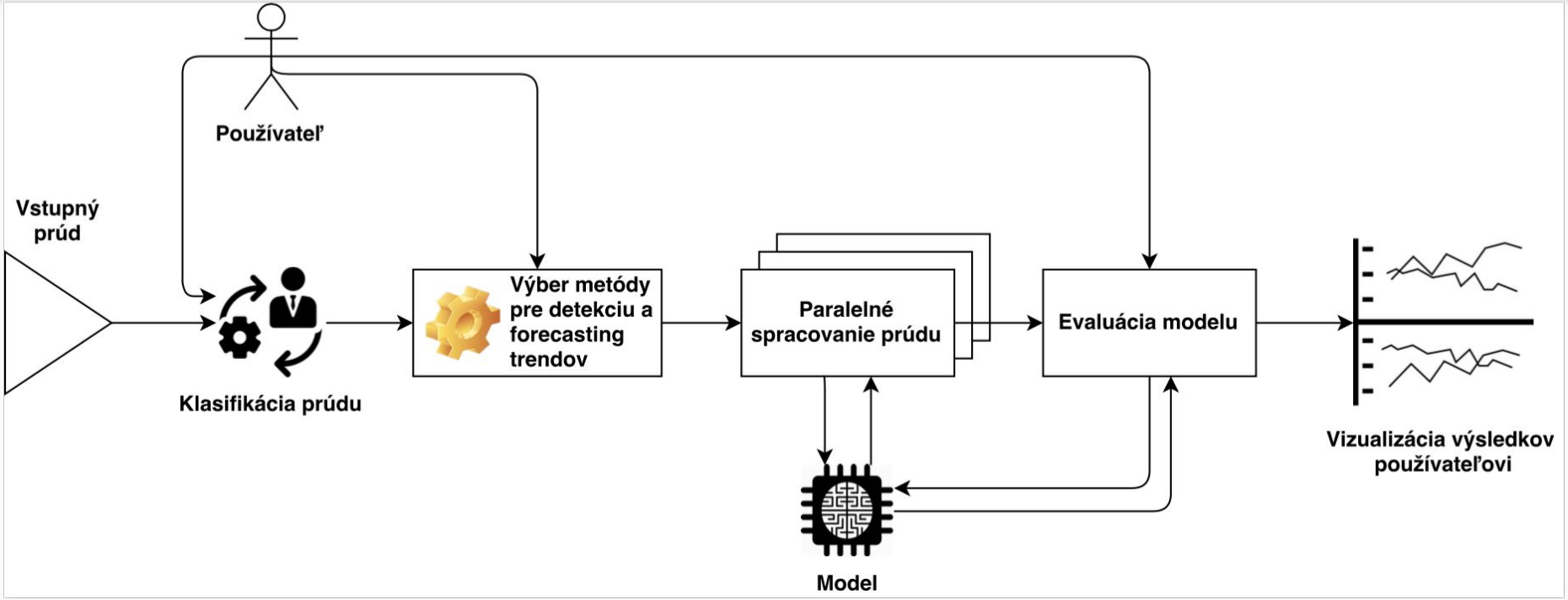
Visualization

Default metric | Music segment | Streamgraph



The Bevis Frond | Monster magnet | Avril | Green day | Nirvana

Goal: Applicability and simplicity of method for domain experts without need to know it in detail.



Hypothesis 1: Our solution detects trends with given accuracy using semi-automatic selection of trend detection method while providing answers in real-time.

Hypothesis 2: Proposed method is easy to use while given results are easily interpretable and understandable for domain experts.

Evaluation: different domains focusing on trend detection, synthetic and real-world data

- Sensors and energy networks generated data,
- Networks devices logs,
- Twitter real-time statuses API,
- The UCR Time Series Classification Archive[1].

[1]Yanping Chen, Eamonn Keogh, Bing Hu, Nurjahan Begum, Anthony Bagnall, Abdullah Mueen and Gustavo Batista (2015). The UCR Time Series Classification Archive. URL www.cs.ucr.edu/~eamonn/time_series_data/

Requirements

- Consider: *anomalies, changes* and *seasonal effects*,
- Scalable and fault-tolerant solution,
- Real-time evaluation of selected method,
- "On-the-fly" ML models adjustments.