

Similarity Brings Real Time Deep Learning To The Edges Of The Internet Of Things

Deep Learning For The Connected World



Predict events and detect anomalies in real time, using deep distributed learning, on massive time series data



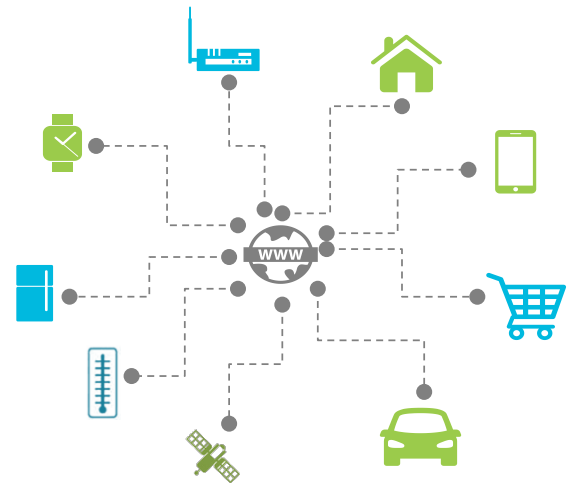
Seamlessly **combine and enrich data** from many diverse sources to give your models more predictive power



Help decision-makers **create persuasive, explainable models** with interactive, self-service tools

The IOT is all about time series data. Similarity is the only company effectively doing real time deep learning on massive amounts of time series data. We've developed innovative new methods you can't get anywhere else.

- ▼ Run on huge networks of commodity devices, both large and small, in a cooperative system
- ▼ Analyze and act in real time, regardless of computing, connectivity, and bandwidth restraints
- ▼ Automatically learn normal individual sensor behavior, including both short and long term cyclic behavior
- ▼ Adaptive compressed reporting reduces bandwidth consumption, storage, and analysis time
- ▼ Smart alerts based on deep learning mean fewer false alarms and less time spent determining what is happening
- ▼ Deployment is fast and easy: no need to create rules or write code



Customer Case Study

SkyCentrics and Similarity Make Buildings Smarter



Real time data from SkyCentrics sensors, such as thermostats and load controllers, are combined with Similarity's cutting-edge real time predictive analytics for anomaly detection, analysis, and monitoring. This results in improved commercial building operational performance by reducing energy consumption, reducing maintenance costs, and extending the life of high-value equipment.



Shown: Anomaly detection on temperature sensor data



Purpose-built for speed and massive scalability on simple commodity hardware, reducing infrastructure costs



Our Predictive Archetypes do the heavy lifting; you don't need to know which questions to ask



Creating new predictive models takes just seconds because you only load the data once. Scoring takes milliseconds.



Advanced real time anomaly and pattern detection give you early warnings, allowing for quick response and major cost savings



Massive scalability and real time ingestion allow for instant analysis on all the available data



Supports iterative, interactive exploring, learning, and model creation, leading to faster and more relevant discoveries

Similarity Technology Platform



Applications



Visualization Tools



Distributed Learning



Real Time Predictions

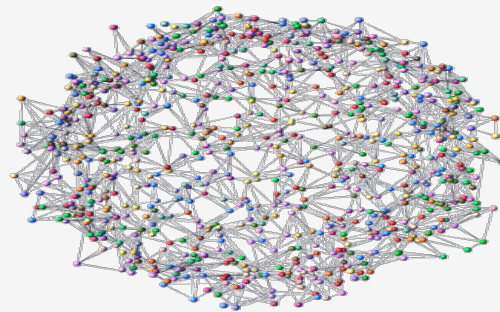
REST APIs and Connectors

Correlation and Similarity

Predictive Model Creation

Anomaly Detection

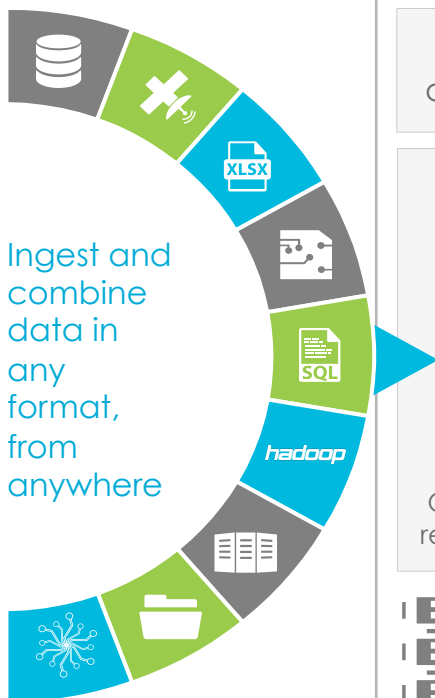
Real Time Deep Learning



Our compressed, *living* in-memory knowledge graph makes finding relationships and patterns across disparate data fast and efficient



Runs on Commodity hardware



What makes it deep learning? We use a proprietary, scalable combination of Convolutional Neural Networks, Self Organizing Maps, clustering algorithms, statistical correlation and similarity measurements, and symbolic representation.