Cognitive Approach To Unsupervised Anomaly Detection

Let your machines tell their own story

The Challenge

Preventative maintenance is only as good as your anomaly detection. Only 20% of asset failures are common and predictable, leaving you exposed to 80% of failures still occurring. Moreover, using traditional approaches, only 20% of machine failures are avoidable.

Most organizations continue to add more sensors and collect more data in a vain effort to close this gap, but this solution doesn't scale. It requires a large group of domain experts to sift through the data and find what type of anomalies are happening across all machines and determine if the anomalies will lead to production issues or failures. It's hard to know which anomalies are important and how they influence each other in an ever-changing environment – particularly when you only have 20% of the information required.

Unplanned downtime is caused by equipment failures

43%

More repair costs to fix failed asset than if the problem was identified prior to the failure

50%

Manufacturing production capacity lost every year due to unplanned downtime

5%

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Cognitive Anomaly Detection & Prediction

Progress® DataRPM® Cognitive Anomaly Detection and Prediction provides a framework for multi-sensor time series data. It employs Meta Learning that uses machine learning to analyze sensor data from every machine to find patterns and anomalies in data and identify influencing factors and predictors to automate anomaly detection. This enables enterprises to make predictive maintenance a reality.

Taking a cognitive approach to anomaly detection delivers immediate insights into anomalies and influencing factors without requiring prior data failure labels or an expert to identify the early signals that predict downtime. The framework is designed for unsupervised detection of anomalies. This approach lets the machine data speak for itself to reveal the "unknown unknowns".

Progress DataRPM customers have detected up to 66x more anomalies

The Power Of Cognitive Anomaly Detection & Prediction for IIoT

Savings of up to 30-40 %

Maintenance Cost Reduction of 25-30 %

Reduction in Downtime from 35-45 %

10-fold Return-On-Investment (ROI)

Breakdown Elimination of up to 75 %

Increase in Production of 20-25 %

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About DataRPM

DataRPM, a Progress company, is a pioneer in cognitive technology and is on a mission to transform the future of the Industrial IoT through disruptive cognitive data science. It enables asset-intensive organizations to achieve fail-proof environments, maximizing the yield of their mission-critical assets and avoiding asset failures via timely predictions and recommendations. DataRPM's patented Cognitive Predictive Maintenance (CPdM) platform is a first-of-its-kind solution, making the process of voluminous data ingestion and autonomous analytics faster, scalable and devoid of manual methods and errors. The Meta-Learning powered solution is credited with consistently delivering greater than 80% accuracy in asset failure prediction in 1/30th the time and resources, delivering over 30% in cost savings. Since its inception in 2012, DataRPM has successfully provided leading-edge solutions and services to the top industrial conglomerates around the globe. It has made asset-related decision-making within organizations faster, credible and more quantifiable through data-driven insights and machine recommended predictions, recommendations, and solutions. In 2017, DataRPM was acquired by Progress [NASDAQ: PRGS].

→ **Email us to start your challenge today**

About Progress

Progress (NASDAQ: PRGS) offers the leading platform for developing and deploying mission-critical business applications. Progress empowers enterprises and ISVs to build and deliver cognitive-first applications that harness big data to derive business insights and competitive advantage. Progress offers leading technologies for easily building powerful user interfaces across any type of device, a reliable, scalable and secure backend platform to deploy modern applications, leading data connectivity to all sources and award-winning predictive analytics that brings the power of machine learning to any organization. Over 1,700 independent software vendors, 100,000 enterprise customers and 2 million developers rely on Progress to power their applications. Learn about Progress at www.progress.com or +1-800-477-6473.

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