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## Silicon Worms takes off: mAlnthink.ai develops DeepAnT Performance, the world's fastest multivariate anomaly detection system



Worms (ots) -

Worms is becoming a hotspot for predictive high-end algorithm development: The deep-tech company mAlnthink.ai presents DeepAnT Performance, currently the most powerful method for anomaly detection in multivariate time series – faster and more precise than any previous solution on the market.

Under the scientific direction of Dr. Igor Kadoshchuk, one of the leading minds in the field of machine learning, the mAlnthink team in Worms has developed a system that sets standards: **DeepAnT Performance** is based on advanced deep learning architecture and combines the highest detection accuracy with maximum processing speed.

### Designed for highly complex data environments

DeepAnT unfolds its full potential especially in data-intensive sectors such as finance for example:

- **Early detection of financial fraud** by detecting non-linear anomalies that traditional methods do not detect
- **Significant reduction of false positives** while maintaining maximum precision
- **Proactive risk management** instead of reactive measures
- **Scalability and real-time capability** for big data architectures in banking and financial services

### Convincing numbers: DeepAnT dominates all benchmarks

In extensive comparative tests, DeepAnT Performance was tested against the most well-known methods on the market – including ARIMA, LSTM, Isolation Forest and rPCA.

### Test setup:

- **95% clean data** (including seasonal, trend, and mixed time series patterns)
- **5% anomalies**, simulated as point, sequence, and correlation-based patterns
- **Comparison criteria:** Precision, Recall, F1 Score

### Results (see graphic):

- **DeepAnT Performance 0.95 achieved peak values above 0.95** for all three key metrics (Precision, Recall, F1 Score)
- Significantly superior to LSTM (Ø approx. 0.85), rPCA (Ø approx. 0.91) and ARIMA / i-Forest (Ø < 0.80)
- **Fastest processing time in the test field** – ideal for real-time analysis

*"With DeepAnT Performance, we demonstrate that cutting-edge AI doesn't have to come exclusively from Silicon Valley. Our solution was developed in Worms, the city of the Nibelungs, by an interdisciplinary team with global ambitions.*

*We believe that precision, speed, and scalability, as well as the ability to predict specific processes to be monitored, are the new*

currency in the fight against anomalies, fraud, and system instabilities. DeepAnT Performance is our answer to this challenge—technologically superior, economically relevant, and ready for immediate deployment." Sascha Rissel, CEO & Founder of mAlnthink GmbH

#### **DeepAnT Performance - Technology from Worms for the world**

With the development of this high-performance technology, mAlnthink.ai from Worms is positioning itself as a global pacesetter in the field of intelligent anomaly detection – a key technology for fraud detection (internet fraud), IT security, predictive analytics, financial management, and next-generation intensive patient monitoring (healthcare).

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#### **Medieninhalte**



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