Demand Signal AI

Maximize revenue and margins by balancing predicted inventory, production, and material with demand

The Noodle.ai Demand Signal AI (DSAI) application is designed for companies with complex portfolios and variable demand, wishing for better clarity on market signals.

The DSAI application ingests daily sales data, promotion, marketing, and product data, as well as any other internal signaling mechanisms. The application's advanced machine learning models then combine this data with customer-relevant external data signals to predict the most accurate demand signal possible and deliver actionable insights.

With these AI-driven insights, companies gain clarity into key market drivers, enabling them to make better pricing, trading, and planning decisions, and avoid missed sales with improved fill rates.

Key Features

Real-time Recommendations
Ability to rapidly update forecasts and take actions via Sense-Predict-Recommend model

Causal Investigation and Confidence Measurement
Event attribution, illustration of key drivers, and transparency into model confidence

Early Detection
Detect risks and opportunities around unexpected demand deviation

Predictions Powered by AI
Predictions based on advanced machine learning algorithms and deep data science

Greenfield Market Model
Creation of demand/pricing models of markets where none currently exist

Simulation and Scenario Testing
Leverage model's knowledge about a market to test various actions and understand consequences

Application Details

YOUR SUPPLY CHAIN

Internal Data
- ERP, CRM
- Promo calendar
- Product lifecycle
- Forecast history

External Data
- POS/Survey, competitors, events, weather, macroeconomics

NOODLE AI

Enterprise AI® Platform
- Sense | Risks related to promotion, product, pricing, manufacturing, and external events
- Predict | Demand patterns; demand forecast deviation; consumption biases and exceptions
- Recommend | Forecast correction strategy; demand-shaping initiatives

YOU

DSAI Application Interface
- Monitor | Forecast risk summary; historical demand performance
- Risk | Demand deviation by SKU; causal drivers
- Schedule | Mitigative actions and associated value

Key Differentiators

AI-driven Hierarchical Demand Forecasting
Internally-curated ensemble model of advanced AI algorithms create forecasts at every level of the product hierarchy across custom time periods

Granularity and Versatility
Hybrid demand forecasting uses both "top-down" and "bottom-up" approaches for optimal forecast accuracy

Scalability and Customization
Leverages the Noodle.ai Enterprise AI® Orchestrator platform (1.2 petaflop compute, data model & feature libraries) to rapidly scale portfolio coverage and adapt business imperatives into forecasts

Noodle.ai Data Cartridges
Along with external POS data, Noodle.ai's proprietary pre-built external data signals (news, weather, demographics, events) facilitate improved forecast accuracy

Benefits

90-95% accuracy
for market-level and portfolio-level demand forecasts

10-15% decrease in safety stock levels
due to lower forecast variance

5-25% accuracy increase
for item-level and DC-level forecasts

17-20% improvement in fill rate
with more accurate and granular forecast

Noodle.ai is on a mission to create a world without waste. As the leading source of Enterprise AI®, we're pushing the limits of data science to give business leaders a view into the future, enabling them to achieve radical efficiency within their manufacturing and supply chain operations.

Founded in 2016, Noodle.ai has been selected the #1 B2B Startup by LinkedIn, a Top 100 Startup by CIO Review Magazine, and a 2019 Cool Vendor for AI in Supply Chain by Gartner.

Gartner COOL VENDOR 2019