

USING MACHINE LEARNING FOR DEMAND FORECASTING - POC

Optimize your retail demand forecasting with machine learning



Challenge

RELIABLE DEMAND FORECASTING IN TERMS OF TIME AND COST

Forecasting is a fundamental aspect of any retail company's business. Accurate forecasting can help a company reduce risk, make better strategic financial decisions, improve resource allocation and create growth opportunities.

However, traditional models are based on historical patterns of behavior, which makes them unsuitable for accurate forecasting in new or changing situations. For example, these models cannot forecast activities such as new product launches or variable marketing campaigns.

In addition, traditional models often require long processing times, which can hinder the company's ability to make quick and effective decisions.



Solution

USE MACHINE LEARNING FOR DEMAND FORECASTING

Zoi has developed a native SAP connector to the Amazon Forecast service; one of the most advanced tools for optimizing demand forecasting. Amazon Forecast's forecasting engine uses machine learning to combine time series data with additional variables to create more accurate forecasts and predict demand for items without a consumption history or to forecast increases in sales due to promotional campaigns, among others.

With this connector, you can have your own forecasting engine for a fraction of the cost and time that traditional forecasting tools offer and with better results. In addition, you can have a more accurate and up-to-date view of demand trends, allowing you to take proactive measures to maximize growth opportunities and optimize resources.



POC TIMELINE

WEEK 1

Discovery & Implementation

- Discovery workshop, where we learn about your use case and explain the procedure in more detail.
- Sample definition workshop.
- Configuration of the system to collect the data

WEEKS 2 & 3

Data Collection

- Data loading
- Algorithm training
- The system uses machine learning and needs at least two weeks to collect enough data to provide meaningful analysis.

WEEK 4

Results

- Analysis of results
- Presentation of results
- Focus on next steps

BENEFITS

With Amazon Forecast for SAP, companies can enjoy all the benefits of accurate forecasting and replenishment in SAP while avoiding large investments in other products, integrations and licenses.

REDUCE THE RISK OF STOCK-OUTS

Real-time forecasting integrated with SAP ensures inventory and stock availability in stores and distribution centers, thereby reducing the risk of stock-outs.

INCREASES PRODUCTIVITY

By automating forecasting and replenishment processes, it enables employees to focus on other value-adding activities for the company.

REDUCES INVENTORY LEVELS AND COSTS

Creates highly accurate demand forecasts based on actual consumption, thus avoiding overstocking and reducing shrinkage losses.

ACCELERATE YOUR SAP SYSTEMS

Enables you to outsource forecasting to the AWS cloud to free up compute capacity in SAP systems.

SOLUTION FEATURES

AUTOMATED MACHINE LEARNING

Machine learning is a method of data analysis that automates the data modelling process. It helps to make accurate predictions, get deeper insights from your data, reduce operational overhead, and improves processes over time.

MODERN ALGORITHMS

A combination of machine learning algorithms based on the same technology used at Amazon.com are used. Amazon Forecast offers a wide range of training algorithms, from commonly used statistical methods to complex neural networks – all which help to provide more accurate forecasts.

ADDITIONAL DATA SETS INCORPORATED

Amazon Forecast can automatically incorporate built-in datasets to improve your model. These datasets are already feature engineered and do not require additional configuration.

ABOUT ZOI

Zoi is a cloud native IT consultancy that closes the gap between enterprises and new technologies. Together with our strong partners, we are passionate about solving the business challenges of our Retail and Manufacturing customers.

We surf the full stack: from Cloud Migration to IoT and DevOps, Custom Software, Cyber Security, and SAP. Driven by AI, we build innovative solutions that deliver real value.

We are laying the foundation today, to help enterprises unlock the business growth and potential of tomorrow.



- IoT Services Competency
- SAP Services Competency
- DevOps Services Competency
- Retail Services Competency

