ML & AI for Retail

Mosaic brings world-class predictive ML analytics and model development capabilities to our clients in the retail sector, enabling them to be more data-driven in all facets of their business. Our data science consultants transform business questions into analytics-based solutions that bring competitive advantage.

Mosaic Data Science Retail Machine Learning Applications



Inventory Management & Demand Planning

Machine learning allows retailers to combine historical and real-time data, and identify patterns that humans and traditional forecasting tools would have missed. Al automates the process of filling out databases, particularly fixed-data fields, using NLP and Computer Vision to learn from product descriptions and images

Customers -> REI, Hilton Hotels, Clorox, Levi's, Dr. Pepper, Wendy's



Price & Promotionality

Price optimization is an area in which the number of parameters quickly overwhelms the human mind and even current software tools. Machine learning algorithms are able to create multiple decision trees, before combining everything into a comprehensive predictive model that outputs sophisticated analysis and insights **Customers ->** Sears, Hilton Hotels, Levi's, Neiman Marcus, Citgo





Personalization of Recommended Products

Recommendation engines do not just bring consumers' attention to items they are unlikely to discover on their own. When they are rightly done, they keep consumers coming back for more, and also help the retailer forecast demand and make supply decisions well in advance. **Customers ->** REI, Levi's, Neiman Marcus, LVMH





MMM | CLV | Churn

Use machine learning to track customers' shopping habits and assign them a Customer Lifetime Value (CLTV), which predicts how much they're likely to spend on products in the coming year.

Customers -> Vitamin Shoppe, LVMH, Neiman Marcus, Suburban Propane, P&G



Computer Vision & Natural Language Processing

Use AI to create a visual search engine that lets shoppers use their phone's camera to find a specific clothing item or something similar, even recommending accessories. Tag and classify traffic moving throughout your store. Let NLP automate customer interactions, text queries and document processing. **Customers ->** REI, NASA, US Navy



