

NORDSTROM

Nordstrom Analytical Platform and Enhancing the Customer Experience

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Chief Technology Officer, Edmond Mesrobian, recently participated in a conversation with [VentureBeat's Hari Sivaraman](#), discussing the role of data infrastructure to enhance the customer experience. Focusing on AI-powered analytics, Edmond described the journey of building the Nordstrom Analytical Platform (NAP) to leverage deeper insights and predictions for a personalized experience. See highlights from their conversation below.

With our Nordstrom Analytical Platform (NAP), we are improving on our ability to provide personalized product discovery and service.

When we think about analytics as opposed to data reporting, timing is the most precious commodity, and making the timeliest decisions required us to build a platform. Whether it's stores, fulfillment centers or online, we built and translated those signals through models and actions. It's difficult to buy that type of solution off-the-shelf because you need to wire your enterprise. We asked, can we generate a prediction cost-effectively and translate that into a customer benefit and service? That's where we started, and we realized we needed to create it as opposed to buying it.

We embarked on this journey to get the business aligned so that we can capture events and stream them in real-time or near real-time into our analytical platform. We then layered analytical models of a variety of forms to translate into predictions —today's predictions are the new KPIs. Our goal was not to be technology providers for the components, but rather stitch it together to create the kind of analytical platform that we can then robustly drive machine learning. What we call our one-hop engine essentially translates our business events into something that could then be activated through a model. And so that's the special sauce —how we put the business events together, how we transformed them from one hop into our models and then generated predictions on the other end.

Our goal is to make the digital experience personal by offering our customers curated product choices on an individual level.

There are over a hundred AI models that we leverage daily at Nordstrom —a significant portion of them are backward-facing capabilities from inventory control to fulfillment and how to route orders to the nearest store and more. Customers will experience those capabilities indirectly in terms of getting orders shipped and delivered on time. Our mission and holy grail from a digital perspective is delivering the capability of discovery. Taking what we know about our customers we can deliver personalized products and better selection —through improved [Looks](#), style boards and more. We are using AI in a more robust way to drive product discovery and personalization.

We are also focused on what we call our fashion map. The fashion map essentially takes a natural language-based approach with deep learning to interpret images and information from social networks —this allows us so to get to know customers through a natural language conversation, as opposed to keyword searches that are very taxonomy driven and hardcoded. We are continuing to work on achieving AI discovery to get closer to our customers in a personalized way.

See the full conversation below.