

LINGERIE RECOMMENDATIONS

Leveraging data to create valuable recommendations,
and fueling the digital transformation at Van de Velde



SUMMARY

Personalized recommendations are a great way to increase sales, customer experience and brand loyalty. But how to give meaningful product recommendations in a fashion context where the entire item catalogue changes from one day to another?

Together with Van de Velde, Python Predictions developed a recommender system that offers the next best lingerie item to customers. As fashion collections change fast, it is important to make good recommendations at the start of a new season. To tackle this challenge, we used deep learning on product images of the entire collection to link styles purchased in previous seasons to personalized recommended items for the new season.

"Python Predictions proved to be an ideal partner thanks to their expertise in recommendation engines, and their focus on coaching"

Kevin Heyman
Data Scientist,
Van de Velde
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ABOUT VAN DE VELDE

Van de Velde is a proud Belgian family-owned company designing, producing and selling luxurious lingerie. Their award-winning brands PrimaDonna, Marie Jo and Andres Sarda are sold in many countries through wholesale, franchise and in their retail stores Lincherie and Rigby & Peller. Currently, Van de Velde is undergoing a digital transformation, where data and data science play a crucial role.

In order to better serve their customers in the future, Van de Velde has launched several data science projects. They chose Python Predictions as a partner in these projects to coach and support Van de Velde in this journey.

RECOMMENDER SYSTEM

The mission of Van de Velde is to inspire and empower women through lingerie. To succeed in their mission, providing the right advice to women has always been of strategic importance. In a traditional context, the stylist in the shop played a pivotal role in providing this advice, both in terms of fit and in terms of style

– inviting them discover new styles combined with optimal fit. In the current digital transformation, Van de Velde wanted to leverage their data to maintain and improve high-quality advice in an increasingly digital world.

In this project, data scientists at Python Predictions and Van de Velde joined forces to support the mission by means of developing a recommender system that helps the lingerie stylist to give women better and more varied style advice. Just as Netflix helps their users to choose good movies or series based on what they have watched in the past, Van de Velde helps their clients discover the most relevant items in their collections based on their previous purchases.

INTUITIVE APPROACH

There are different ways to build a well-performing recommender system. Since it was crucial to involve a broad audience (stylists, designers, vendors and other employees) in an early stage of the project, we opted for an intuitive approach. This choice allowed us to prove the benefits of using

the internal data for different stakeholders. As such, the project inspired employees of the possibilities of fully using the internal data to improve sales, personalized advice and processes.

COACHING

The recommender system was developed in coaching mode, meaning that an in-house data scientist at Van de Velde developed and implemented the solution, supported by a Python Predictions coach. This way of working was a big success. The expertise and experience of Python Predictions assured that the Van de Velde data scientist could make better and more efficient decisions in developing the recommender system, and at the same time Van de Velde could build up in-house knowledge.

MAIL TEST

The recommender system was tested both offline and in an email campaign, with positive results. There was a significant increase of 24% in "click-to-open rate" between the control and test group, confirming the value of the recommendations to customers.

DEEP LEARNING

In fashion in general, and hence also at Van de Velde, an important part of the collection changes at the start of a new season. This makes it difficult to recommend relevant items when seasons change, as there is no purchase history available for this new season.

Instead of using purchase history, we have used product images from the product database to enable recommending products for new seasons. In this final step, we successfully developed a deep-learning algorithm to link products from old seasons to products from the new season, based on the images of these products.

In this way, it was possible to make this connection with high accuracy, hence completing this hybrid approach to recommendations.

ABOUT PYTHON PREDICTIONS

Python Predictions is a Brussels-based service provider specialized in data science projects with impact.

The company has a strong legacy in predictive analytics projects in a business context, and success cases of applied data science in marketing, risk, operations and HR. Python Predictions enables clients to take their adoption of data science to the next level.

Founded in 2006, Python Predictions is active in b2b and b2c retail, financial services, utilities, postal services, telecommunications and fundraising.



For additional information, please visit www.pythonpredictions.com

