

Bloomreach:

Delivering AI-Powered Customer Experience with Retrieval Augmented Generation



bloomreach

THE RESULTS



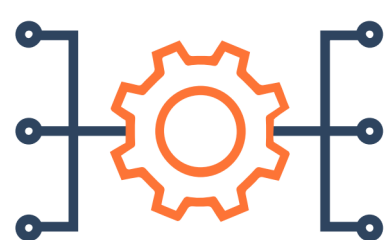
Enabled RAG for GenAI Applications



2X data integration speed



Higher customer satisfaction (higher net promoter score)



Freed engineering resources

Industry:

Digital experience & eCommerce

Founded: 2009

Headquarters: Mountain View, CA

INTRODUCTION

Bloomreach Inc. powers personalized experiences for 25% of eCommerce websites in the US & UK, including CVS and Staples. Powered by advanced AI, especially generative AI (GenAI), Bloomreach excels in conversational commerce, recommendation systems, and search enhancement. Leveraging Nexla, the company expedites data provision for AI applications, streamlines integration processes, and broadens its platform offerings.

THE CHALLENGE

Part of Bloomreach’s GenAI strategy is pairing its large language models with retrieval augmentation to enhance personalized content, search results, etc. This poses the major challenge of ingesting highly heterogeneous and large volumes of product data from Bloomreach’s customers in real time, resulting in substantial engineering costs.

THE SOLUTION

Nexla enables Bloomreach to automate the process of aggregating product and customer information from hundreds of sources to inject into its GenAI models to enhance accuracy and reliability. Through Nexla, Bloomreach extracts, transforms, and loads customer data into their systems, so that high-quality data is automatically fed into Bloomreach’s GenAI models via retrieval augmentation.



Feeding data into our retrieval augmentation system requires a very highly scalable, but also heavily customizable data pipeline platform, which is why we chose Nexla.”

— Xun Wang, CTO, Bloomreach

FUTURE-PROOF DATA INFRA FOR THE AGE OF GENERATIVE AI

In the era of GenAI, the pivotal role of data in fueling innovation is undeniable. As Bloomreach continuously rolls out new product offerings such as Bloomreach Clarity, they face the challenges of surging data usage, heterogeneity, volume, and sources. The challenges are even more emphasized as Bloomreach employs retrieval augmentation to address the limitations of standalone GenAI such as hallucination in order to ensure the currency and accuracy of generated content.

All these challenges call for a robust data engineering approach that promises seamless automation. According to Wang, “Before we had Nexla, (getting product data from customers) was just a nightmare to deal with.” Nexla has transformed the nightmare of real-time data exchange and management into an automated, minimal maintenance process. Servicing a substantial share of the U.S. e-commerce sector, Bloomreach leverages Nexla’s scalable and customizable data pipeline platform to bring more GenAI-powered innovations to reality.

REDUCED TIME-TO-VALUE

“We were able to take a lengthy 3-month engagement and onboarding period for data integrations and cut it down to 1.5 months with Nexla.” Xun Wang, CTO, Bloomreach Inc.

Customer data integration is the prerequisite for Bloomreach’s AI-powered services. To provide customized solutions for each customer, Bloomreach put in extensive engineering effort and resources to connect to data sources and manage hundreds of data flows per customer.

“We are constantly ingesting a massive amount of data in all different types of formats,” said Xun Wang, CTO at Bloomreach. “If it takes a long time to configure things, the customers realize the benefits later.” As Bloomreach expanded its customer base, building pipelines one by one and putting them into production were proven to be costly and unreliable. Customer satisfaction and deal success were put at risk during the onboarding phase. In search of a scalable solution, Bloomreach’s data team turned to onboard customer data through Nexla.

Nexla’s universal connector architecture allows Bloomreach to build pipelines to efficiently integrate customers’ data from any source into its AI models, reducing the overall integration time by 50%. Nexla’s error detection and quarantine feature ensures uninterrupted data streaming. At the same time, the data team maintains full control over the data pipelines and has immediate insight into the pipelines’ health. All this translates into “a huge actual improvement in terms of our ability to bring customers live,” as stated by Wang.

HIGHER UPTIME, HAPPIER CUSTOMERS

In order to ensure the quality of data that enters the retrieval augmentation system, Bloomreach strives to keep customers' data up to date at all times. For example, if a product goes out of stock, the related product SKU (stock-keeping unit) and catalog information must be updated. The data engineering team then had to communicate with the customer back and forth to make the change. Onerous processes like this would negatively impact customers' user experience and cost additional resources.

Nexla's intuitive interface and clear data ownership flow make it convenient for Bloomreach's data team to collaborate with customers and ultimately delegate data updating tasks to business experts on the customer side. A change can be made in a few clicks without involving Bloomreach's data team. Customers can easily navigate their data and update catalog information as often as needed without extra resource input. This way, Bloomreach is able to "maintain a higher uptime and less failure," said Wang, and customers may stay nimble.

“Now with Nexla, we get a whole host of connectors that can be plugged into any kind of commerce platform,” said Wang. “On top of that, we also get the excellent usability, maintainability, and supportability of the connected pipelines.”

UNLIMITED CONNECTORS OUT-OF-THE-BOX

Prior to Nexla, building connectors to eCommerce businesses one at a time was a major roadblock to expanding sales opportunities. “Now with Nexla, we get a whole host of connectors that can be plugged into any kind of commerce platform,” said Wang. “On top of that, we also get the excellent usability, maintainability, and supportability of the connected pipelines.” The variety of connectors enables Bloomreach to quickly execute proof-of-concept by instantly connecting to prospective customers' data sources. This accelerates deal progress, allowing customers to instantly experience Bloomreach's product features.

Nexla liberates Bloomreach from unnecessary data engineering effort, letting them focus on their core strengths. As Wang puts it, “We have to focus our energy to churn around high business value rather than trying to engineer everything — we don't want to reinvent the wheel.”

SUMMARY

Bloomreach, powering 25% of US eCommerce businesses, leverages Nexla's data engineering automation to decrease data integration time by 50%, enhance retrieval augmentation, and boost customer satisfaction. In the era of GenAI, Nexla will continue to play a pivotal role in Bloomreach's innovations as the future-proof data integration tool.