

# Retailer Boosts Satisfaction and Sales with Personalized User Engagement

## Case Study



## Overview

### Personalizing customer interaction

A South African multinational retail and food company decided to adopt a proactive approach to elevating consumer experience and driving business growth. It consulted Zensar to put in place a generative AI agent that makes it easy for customers to discover recipes and related products aligned with their preferences.

#### **Zensar's brief:**

Deploy an LLM-powered generative AI agent that meets these expectations:

- Understand customers' dietary needs from natural language queries.
- Recommend personalized recipes, ingredients, or ready-to-eat meals.
- Streamline purchasing by integrating seamlessly with the company's existing platform.

#### **Beyond the brief:**

In addition to delivering on key requirements, we also leveraged intuitive engagement strategies that encourage longer website visits and additional purchases.



## Challenges

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### Hurdles to driving customer satisfaction and sales

The company's e-commerce website did not have any advanced search or recommendation features, which made it difficult and time-consuming for customers to find products and recipes tailored to their specific dietary needs. This lack of personalization resulted in lower engagement and missed opportunities for additional sales, as customers struggled to find relevant food options.



## Solution

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### AI-engineered Recommendations

As our client's technology partner, we collaborated with the client's team every step of the way to deliver an enriching solution experience, across three phases of implementation:

**Discover:** We started the engagement by gaining a granular understanding of the client's product ecosystem and AI-driven behavioral insights about the shoppers.

**Design:** We designed an advanced LLM-powered generative AI agent, focussing on these functionalities:

- Interpret users' natural language inputs to comprehend customers' dietary preferences and recipe requirements.
- Generate personalized suggestions, including ingredient lists and ready-to-eat meal recommendations, retrieving data from a recipe and ingredients database.
- Map ingredients to available products to streamline purchasing and suggest complementary items, leveraging integration with the company's existing platform.

**Deploy:** Guided by our commitment to "experience-led everything," we deployed a generative AI agent that delivers on these priorities:

- Speed up recommendations by simplifying recipe discovery based on dietary preferences and streamlining ingredient acquisition.
- Encourage customers to spend more time on the site and make more purchases with personalized user interactions, enabled by intuitive engagement strategies.
- Drive additional revenue by suggesting complementary products, essentially enabling upselling and cross-selling opportunities.

# Solution enablers



- **Azure AI** hybrid search was used for its ability to combine full-text and vector queries for delivering highly relevant search results efficiently.
- **Azure Fabric** search was used for its robust, scalable microservices architecture that enhances application performance and reliability.
- **OpenTelemetry** was used for its unified, open-source framework that simplifies observability by standardizing the collection of logs, metrics, and traces.
- **PGvector** was used for its efficient handling of high-dimensional data, enabling fast and accurate similarity searches within PostgreSQL.
- **Redis** was used for its high-performance, in-memory data storage that ensures fast access and scalability for various applications.
- **LangChain** agents were used for their ability to automate complex tasks by leveraging advanced AI reasoning and decision-making capabilities.
- **OpenAI GPT-4o** was used for its advanced multimodal capabilities, enabling seamless processing and generation of text, audio, and images in real time.
- **Python** was used for its simplicity, versatility, and extensive libraries that accelerate development and innovation across various domains.



# Impact

## Growth driven by enhanced customer experience

According to internal benchmarks, these results were delivered:

- 50 percent faster recipe/ingredient recommendation
- ~30 percent growth in potential upselling and cross-selling
- 30 percent increase in user engagement

**Business outcomes:** The solution draws on the power of a personalized approach driven by generative AI to enhance customer experience and satisfaction, energize engagement, and drive sales growth.



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