Next-Gen Supply Chain Solutions Provider, QAD, Improves Search Accuracy Using GenAI

Pythian helped QAD integrate Generative AI capabilities, made easy with Vertex AI Search and Conversation on multiple data sources in their internal Google Sites, creating an app to index HTML content and training new users on the platform's extensive features.

Overview

QAD is a provider of next-generation manufacturing and supply chain software solutions in the cloud, delivering adaptive applications that help manufacturers rapidly respond and adapt to disruptions in supply and fluctuations in demand. Currently providing solutions to customers in 84 countries, QAD seamlessly optimizes agility, efficiency, and resilience for their customers.

The challenge

As a long-time customer of Google Workspace and Google Cloud, QAD currently uses Google Sites to store useful information for employees. The sites are indexed on Google Cloud Search, which allows employees to use keyword searching to find information. QAD asked Pythian to determine whether Vertex AI Search and Conversation would improve and accelerate employees' ability to find answers to their questions.

Vertex AI Search and Conversation is an out-of-the-box search engine solution from Google Cloud's Vertex AI platform. It enables organizations to quickly build Generative AI-powered search engines for enterprise search capabilities to be made available to users (in this case, customers and employees). Vertex AI Search and Conversation can be customized to meet specific objectives while also maintaining access control, data privacy, and sovereignty. It enables users to ask follow-up questions, conduct multimodal searches, view summaries of top search results, and more.

Industry

Manufacturing and logistics software

Location(s)

Santa Barbara, USA

Technologies

- Vertex AI Search and Conversation
- Google Cloud
- App Engine
- Identity-Aware Proxy
- Cloud IAM
- Google Cloud Storage
- Google Takeout

Overview

Pythian delivers solutions for QAD, a provider of next-generation manufacturing and supply chain solutions management in the cloud. The challenge was to determine whether Vertex AI Search and Conversation could improve employees' ability to conduct internal searches of information and enhance overall performance.

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Pythian partnered with QAD to help conduct a test of Vertex AI Search and Conversation on five internal Google Sites: Human Resources, Finance, IT Help Desk (Internal & External), and Legal. Pythian had built a trusted relationship with QAD, as they had worked together on previous engagements. Pythian identified and provided a custom solution to implement the project and trained the employees on effectively using Vertex AI Search and Conversation.

The solution

To implement the project, Pythian recommended that an internal administrator use Google Takeout to export HTML content from the Google Sites and then upload the content to a Google Cloud Storage (GCS) bucket. Pythian created a Vertex AI Search and Conversation app to index the HTML content that had been uploaded to the GCS bucket. While this approach could not be automated, it was effective for comparing the efficiency of Vertex AI Search and Conversation to Google Cloud Search.

Business outcome

The project exceeded the established criteria. Vertex AI Search and Conversation improved overall search accuracy, as it provided precise responses to queries and excluded false information. It was also able to connect and relate correlating copy (e.g., blending information from IT Help Desk and related applicable information from Human Resources). Employees were amazed at the power of using natural language to answer questions, due to Vertex AI Search and Conversation's ability to consolidate answers from resources on file. More importantly, QAD was impressed that employees became more productive due to the speed at which they were able to answer questions.

Pythian demonstrated the technical feasibility of using Vertex AI Search and Conversation across the organization, and how it could be expanded to other types of data sources (e.g., databases, portals, documents). Pythian was also able to educate the QAD's employees on how to understand and use Vertex AI Search and Conversation to its full capabilities. QAD is now confident it can implement a more robust version of Vertex AI Search and Conversation that would tap into future updates from Google. They were also encouraged that Pythian would be able to help with training on future AI-related technologies.

Want to see similar results for your company?

[Get in touch with a Pythian Google Cloud expert](#) to see how our team can help.

Business need

QAD, a long-time customer of Google Cloud, uses internal Google Sites to store useful information for employees. Google Cloud Search allows employees to use keyword searching to find information. QAD wanted to conduct a proof of concept of Vertex AI Search and Conversation on five internal Google Sites.

Solution/What Pythian did

Pythian recommended an internal admin use Google Takeout to export HTML content from the Google Sites and then upload the content to a Google Cloud Storage (GCS) bucket. Pythian created a Vertex AI Search and Conversation app to index the uploaded HTML content. They also trained employees on how to best use Vertex AI Search and Conversation.

Result/Key outcomes

Vertex AI Search and Conversation improved search accuracy and helped employees to be more productive. Pythian was able to demonstrate the technical feasibility of using Vertex AI Search and Conversation across the organization, and how it could be expanded to other types of data sources.

To get started with Gen AI in your organization, engage with Pythian's team of AI experts by [leveraging our AI Educational sessions](#).

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About Pythian

Founded in 1997, Pythian is a data and analytics services company that helps organizations transform how they compete and win by helping them turn data into valuable insights, predictions, and products. From cloud automation to machine learning, Pythian designs, implements, and supports customized solutions to the toughest data challenges.

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