

NEW RESOURCES CONSULTING

CASE STUDY

AI-Powered
Search

TECHNOLOGIES

OpenAI GPT-4o &
LangChain

INDUSTRY

Financial

CHALLENGE

Almost every business, from small startups to large enterprises, is inundated with diverse and often conflicting sources of knowledge. This can overwhelm new hires and seasoned employees when finding and sharing knowledge. A global financial firm found that their employees were spending 10-15 minutes each time an information request came from a client researching the answer, often contacting subject matter experts (SME). This information was spread across various platforms, including SharePoint sites, documents, Workday, and other tools. New Resources Consulting (NRC) aimed to revolutionize the way this research was conducted. This initiative would enable employees to locate critical knowledge quickly, driving their success and improving client outcomes while allowing SME employees to focus on more impactful tasks.

APPROACH

Developing a solution independently or casually can lead to unexpectedly high costs, poor performance, and unsatisfactory results. The client sought an approach that would integrate various sources of knowledge to meet their needs while effectively managing costs and ensuring robust security. The solution would include the following key features:

- **Integrated and normalized knowledge** from multiple sources into a unified system.
- **Natural language search and response** of the knowledge base.
- **Summarized search results**, accelerating the process of finding relevant knowledge.
- **Provide direct links** to the original reference sources down to the specific page.
- **An intelligent adaptation workflow** to correct inaccuracies and fill gaps in knowledge by notifying the owners while also training the AI to perform summarizations that align more closely with the client's expectations.

This is amazing. The time that will be saved for our SMEs will allow them to focus on business-critical tasks and the client satisfaction improvement will be immeasurable.

- Vice President of
International Financial
Services Company

SOLUTION

Our solution seamlessly integrates Azure services with our specialized processes and user experience to meet the unique needs of the client:

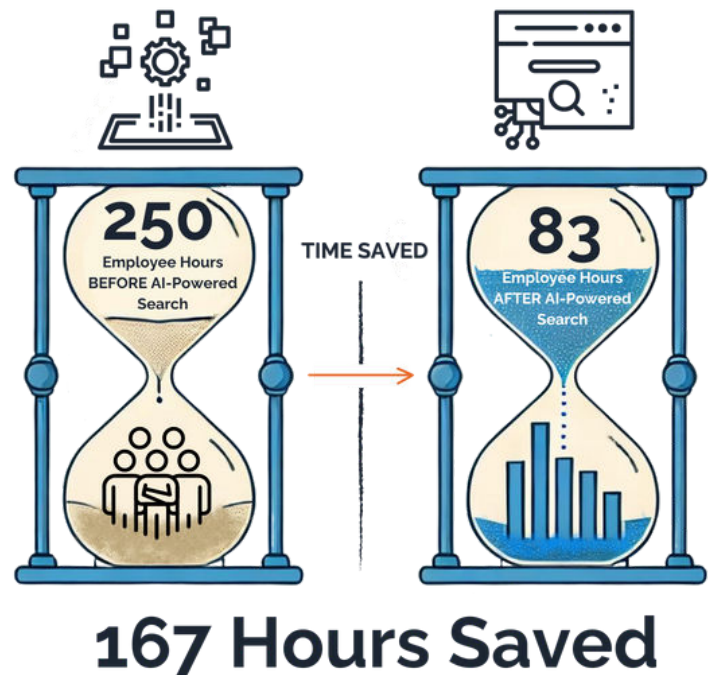
- **Specialized pipelines** were developed to ingest knowledge from diverse sources into Azure AI Search efficiently.
- A **unique normalization process** utilizing Azure Document Intelligence was implemented within Azure AI Search, enabling diverse knowledge to be presented and searched in a unified format.
- **Azure OpenAI models** facilitate the summarization of top search results, combined with an intelligent adaptation workflow that differentiates between knowledge and AI issues, ensuring continuous improvement.
- **LangChain framework** enables the integration and productionalization of this workflow.



RESULTS

The impacts of this solution are threefold:

1. **Search Efficiency:** For this financial client, the search time can accumulate rapidly. Equipped with a cost-effective solution, reducing each query by just five minutes would save up to \$200,000 per month in advisor salaries.
2. **Onboarding Efficiency:** Robust access to enterprise-wide knowledge can halve the time required to onboard new employees at a global enterprise.
3. **Customer Satisfaction:** Reducing customer hold time by enabling advisors to quickly find information significantly enhances customer satisfaction.



BROADLY APPLICABLE DISCLAIMER

This solution goes well beyond the financial vertical – it's perfect for any knowledge-based search, from capturing live QA to developers documenting complex systems.