



NeuralSeek

Answers as-a Service



Customer Technical Presentation

2024

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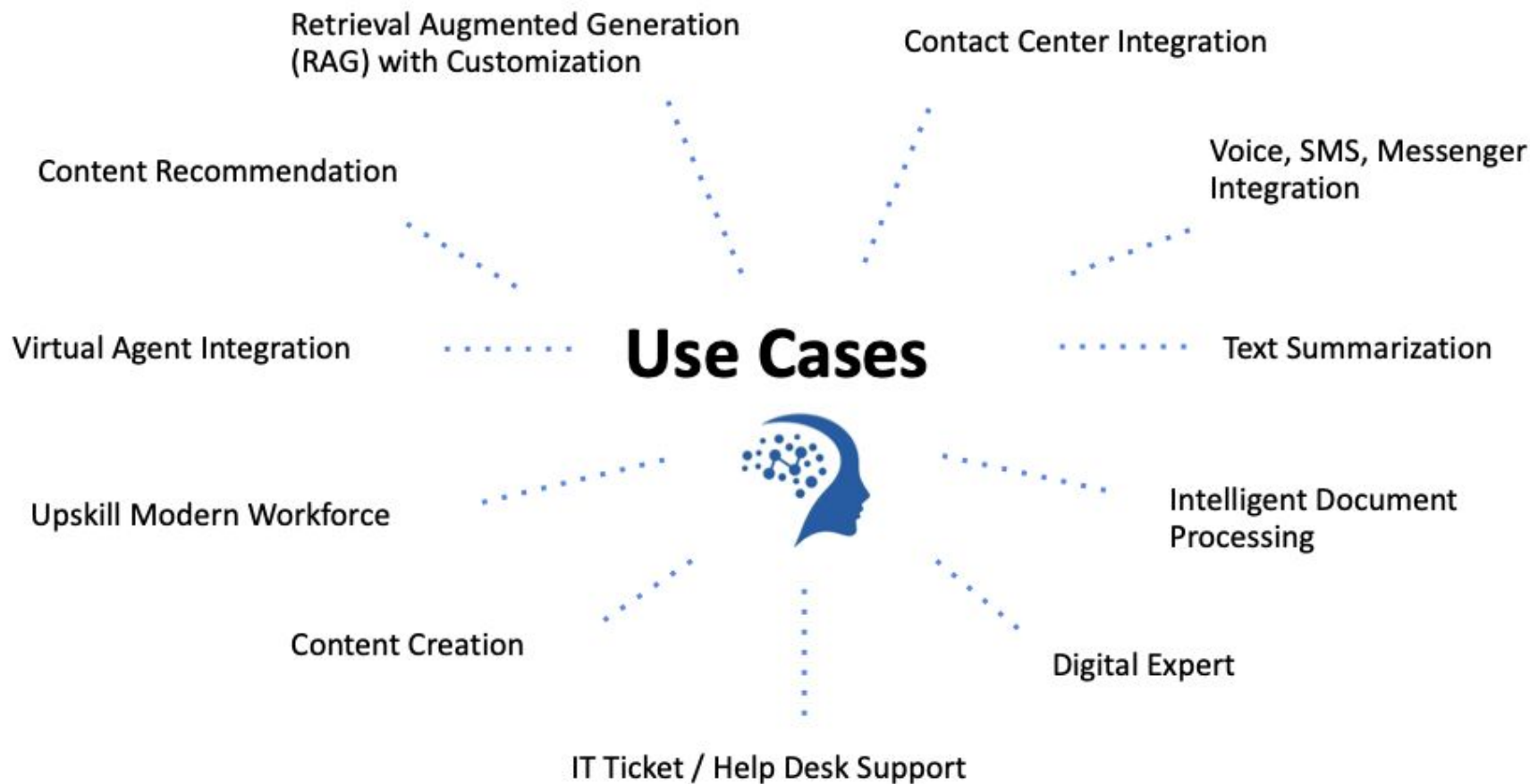
714-747-3850

What is NeuralSeek?

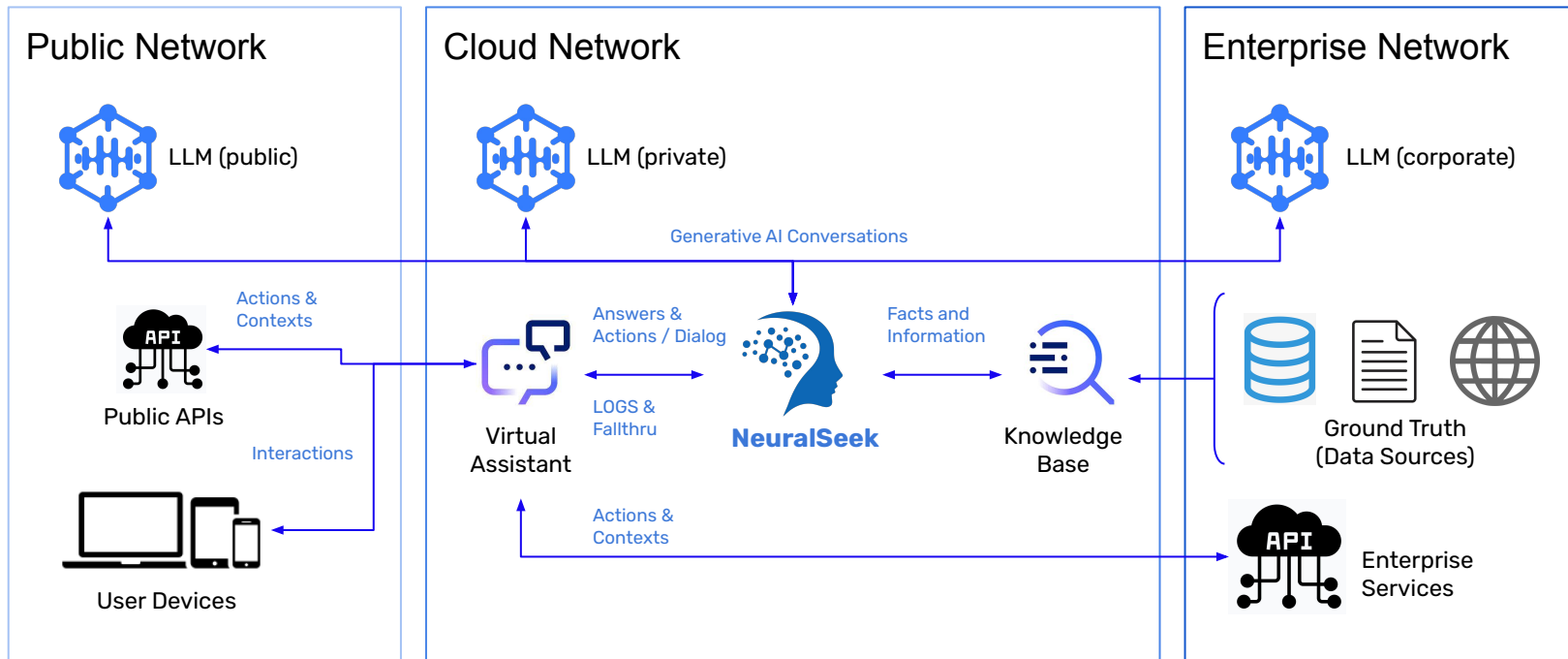
SaaS plug-in for Corporate KnowledgeBases, Virtual Agents, Contact Center Software solutions, and many other human - machine communication processes/needs

Reduces time, money, and effort with building and maintaining AI-backed applications – **in exchange for SaaS consumption**

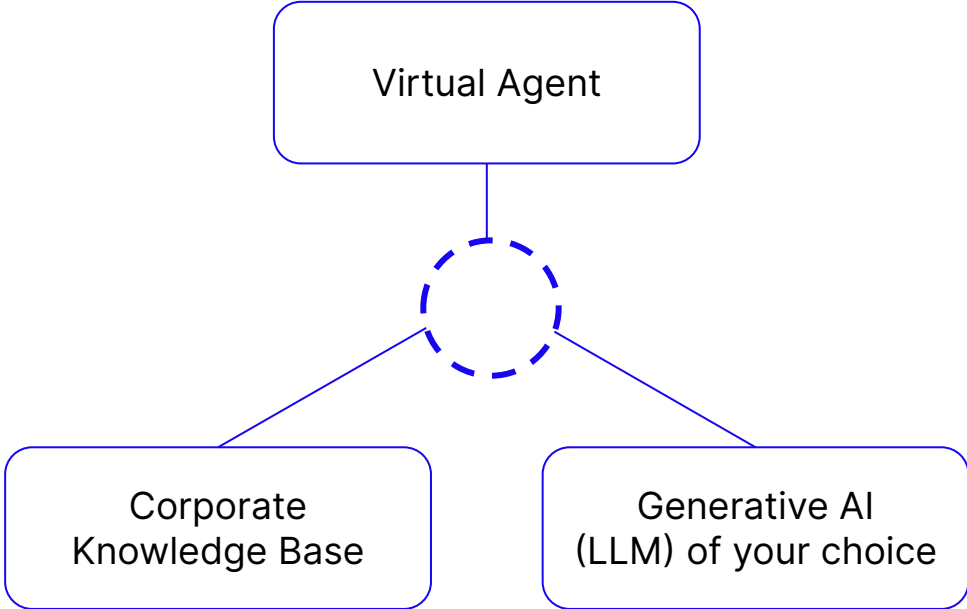
Allows businesses to use Large Language Models against their own data with 'guide rails' - **maximizing trust, transparency, and control**



NeuralSeek Reference Architecture



Example: Virtual Agent



Standard Virtual Agent Technology Shortfalls



Sorry, I don't understand. How would you like to continue?

Rephrase my question



In many situations, customers are simply looking for answers to questions about the company, products, procedures, or policy

1:43 PM

Sorry, I don't understand.

You can search for shoes on our website! www.shoes.com



Most Virtual Agents don't handle open-ended questions well – it's too hard and costly to build dialog for every possibility



I don't know specifically what you are asking about, but one of the following options may be of help:

Card >

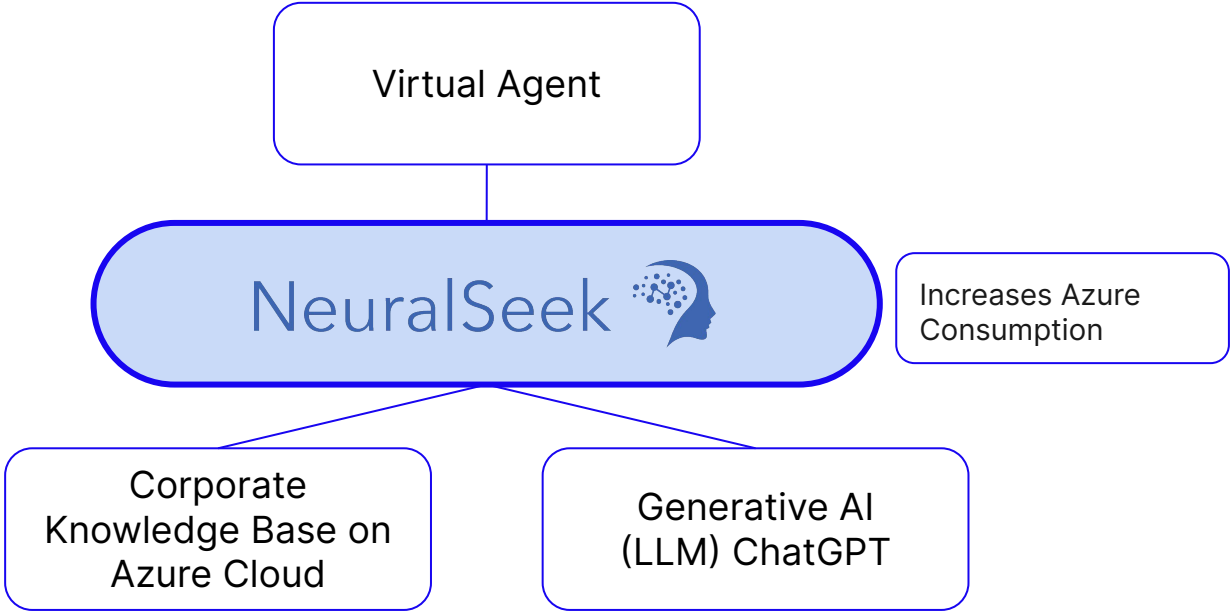
Loans >

Insurance >



Once the Virtual Agent becomes the “first call” – customer expectations demand answers to all questions – or the churn risk rises!

NeuralSeek - solving the VAT challenges



Benefits of adding NeuralSeek to your VAT

- Automatically creates potential intent and actions that can be easily uploaded into the virtual agent with ease.
- Changes to your corporate knowledge base can be automatically detected and curated, and updated with minimal manual intervention.
- Automatically provides context to your favorite LLM of choice, and leverages its capability to provide concise answer that feels more natural.
- Powerful analytics to real-time monitor coverage and confidence level of the answers, down to the actual raw source.

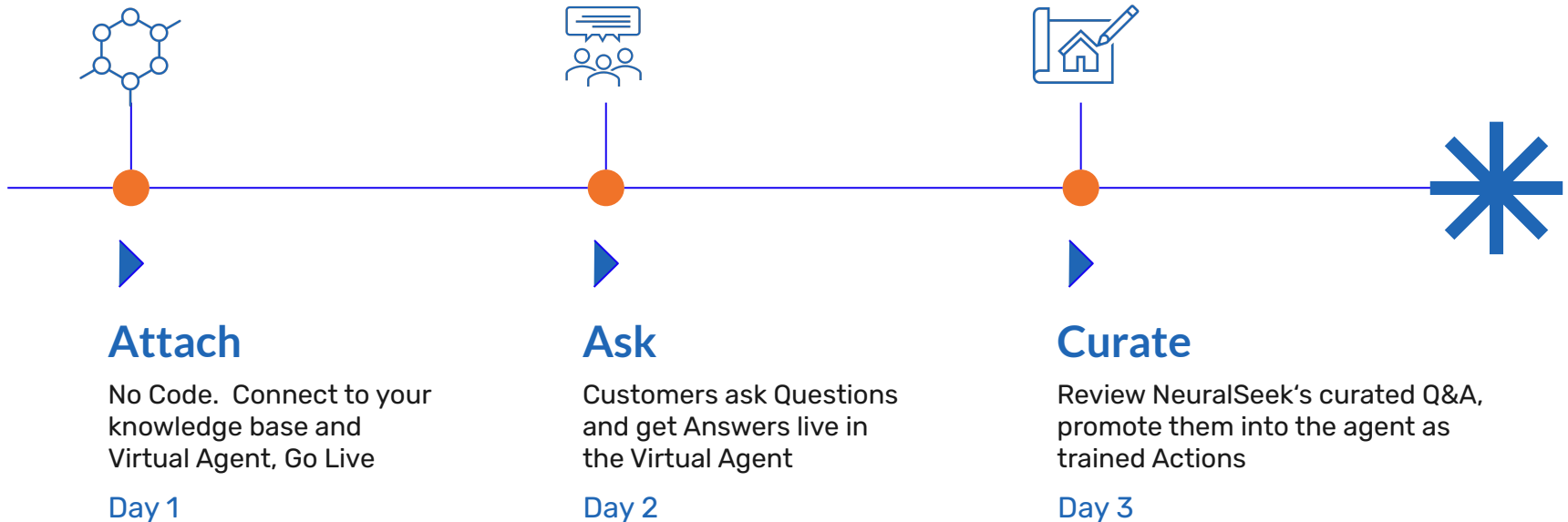
What NeuralSeek eliminates

- Work needed to create every possible intentions and actions for each individual questions.
- The need to constantly update intentions and answers according to the changes and updates in corporate knowledge base which can be highly time consuming.
- Integrating your choice of LLM, which requires additional integration and engineering to make it work with your corporate knowledge base.

The Value Of Updating your VAT

- **50%** cost savings
- **18** percentage-point increase in customer satisfaction
- **20** percentage-point increase in first contact resolution
- **20** percentage-point increase in human agent satisfaction
- **15** point increase in NPS
- **9%** increase in revenue attributed to use of Virtual Agent Technology.

NeuralSeek eliminates upfront development



Build backwards with NeuralSeek
Remove the need to spend weeks/months of designing Q&A into your Virtual Agent

NeuralSeek within Azure



Azure
AI Bot

Make the
hype around
Generative AI
real for your
business

NeuralSeek is a low touch, easy to implement, SaaS plug-in for a Corporate KnowledgeBase, Virtual Agent, or Contact Center solution that helps businesses get to market fast with Generative AI.



Azure
Data Explorer &
Cognitive Search



ChatGPT

ChatGPT

NeuralSeek in AWS



Amazon Lex

NeuralSeek View purchase options

Sold by: [Converlistics](#) Save to list

AI-powered conversational Q&A for corporate chatbots. Drastically cut your build & maintenance time

[Overview](#) [Pricing](#) [Usage](#) [Support](#) [Reviews](#)

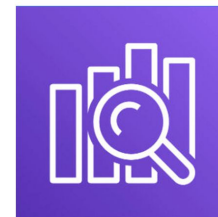
Product Overview

AI-powered conversational Q&A for corporate chatbots. NeuralSeek provides corporate guardrails for Large Language models, allowing you to see answer provenance and generate conversational answers to questions based on your specific corporate knowledge. NeuralSeek also auto-builds Virtual Agents like AWS Lex, Cognigy, [Kore.ai](#), and IBM Watson Assistant. It maintains answer to source mapping, and will alert you when curated answers become outdated and will prompt you to fix those automatically. In addition, advanced analytics highlight content areas that need improvement, based on relevancy scoring from user questions. NeuralSeek drastically reduces the time and cost to build and maintain a chatbot.

Sold by [Converlistics](#)

Highlights

- Create natural language answers to user questions based specifically on your corporate knowledge
- Auto-Build and auto-update content into AWS Lex, Cognigy, [Kore.ai](#), and Watson Assistant
- Integrated analytics tracks knowledge areas and recommends areas to be updated



Amazon OpenSearch



Amazon Lambda

NeuralSeek in IBM Cloud



Watson Assistant

IBM Cloud

Catalog / NeuralSeek

AI-powered conversational Q&A for corporate chatbots. Drastically reduces the time and cost to build and maintain a chatbot.

Create About

Type: Service

Provider: Cerebral Blue LLC

Last updated: 04/07/2023

Category: AI / Machine Learning

Compliance: IAM-enabled

Location: Frankfurt, Dallas, Sydney

Related links: Docs, Get help

Disclaimer
This third-party product is provided by a vendor outside of IBM and is subject to a separate agreement between you and the third-party, if you accept their terms. IBM is not responsible for the product and makes no privacy, security, performance, support, or other commitments regarding the product.

Select a location: Dallas (us-south)

Select a pricing plan: Displayed prices do not include tax. Monthly prices shown are for country or location: United States

Plan	Features and capabilities	Pricing
Bring-your-own-LLM	Automatically catalog, curate and group questions and answers. Auto-Build Watson Assistant Actions & Dialogs.	\$500.00 USD/Instance \$0.05 USD/API Call

Summary

NeuralSeek [Estimate costs](#)

Location: Dallas
Plan: Bring-your-own-LLM
Service name: NeuralSeek-vi
Resource group: Default

Apply promo code

I have read and agree to the following third party terms: [Terms](#)

Create

Add to estimate



Watson Discovery




NeuralSeek

Appendix - Additional Details



NeuralSeek: Home

NeuralSeek 

Home

Configure

Integrate

Extract

Explore

Seek


Curate

Analytics

Logs



NeuralSeek is ready to answer! 

 As questions are answered by NeuralSeek, we can automatically build out and maintain portions your Virtual Agent. Use the buttons below to quickly generate Q&A content to bootstrap and test your Virtual Agent.

Auto-Generate
Questions







Manually Input
Questions



Upload Test
Questions

















Next Steps:

-  [Integrate](#) with your Virtual Agent
-  Trace answers back to their sources & Train question to source relevancy on the [Seek](#) tab
-  Edit, organize, and train Answers on style and content on your Q&A content on the [Curate](#) tab
-  View [Analytics](#) on your content and explore how source coverage and confidence has changed over time.












NeuralSeek: Configure



 KnowledgeBase Connection	▼
 KnowledgeBase Tuning	▼
 LLM Details	▼
 Company / Organization Preferences	▼
 Platform Preferences	▼
 Corporate Document Filter	▼
 Corporate Logging	▼
 Prompt Engineering	▼
 Answer Engineering & Preferences	▼
 Intent Matching & Cache Configuration	▼
 Intent Categorization	▼
 Table Understanding	▼
 Personal Identifiable Information (PII) Handling	▼
 Governance & Guardrails	▼

NeuralSeek: Integrate

-  Watson Custom Extension
-  Watson Logs
-  LexV2 Lambda
-  LexV2 Logs
-  KoreAI Logs
-  WebHook
-  **API**
-  Console API
-  Self-Hosted LLM

NeuralSeek 1.0.1 OAS3

[.neuralseek.json](#)

NeuralSeek - The business LLM accelerator

- [Terms of service](#)
- [NeuralSeek Support - Website](#)
- [Send email to NeuralSeek Support](#)
- [End User License Agreement](#)
- [Documentation](#)

Servers

Computed URL: <https://testapi.neuralseek.com/v1/IBM>

API Key: 92b8dc2f-a9abe128-53875fae-8624959e

Server variables

instance

[Authorize](#) 

Seek

POST [/seek](#) Seek an answer from NeuralSeek 

Categorize

POST [/categorize](#) Categorize text into an Intent & Category 

Explore

POST [/explore](#) Explore with NTL or a template 

NeuralSeek: Extract



Extract 

Enter text to extract entities




NeuralSeek can automatically extract entities from blocks of text. We have 50+ entities built in, and you may define your own entities on the table to the right, or dynamically via the API during a call to the Extract endpoint.

Additionally, NeuralSeek can perform Slot Filling. Define the slots (entities) that you would to obtain from a user, and NeuralSeek will extract the entities from their input text while generating the next response back to them. You can choose to validate found entities on ever turn, or at the end if desired. Users can correct input while in the slot filling loop.

Test out slot filling using the "Slot Builder Tab on the table to the right. For supported platforms you can download a sample load file, or for all platforms you can copy the slot JSON to easily configure the API call.

Custom Entities

Slot Builder

Name	Description	Format	
dog-breed	Different breeds of dogs	string	
Save 			

NeuralSeek: Seek

How does Neuralseek integrate with ChatGPT English

NeuralSeek connects directly to Watson Discovery, and has a no-code integration to Watson Assistant. It can create both Watson Assistant Actions and Watson Assistant Dialogs. NeuralSeek can be integrated into any chatbot or virtual agent that can call an external webhook or API.



Seek Personalize

User ID: 12345

Session: MC45-MDg1-MzE1

Session Turns: 1

Provenance: On

Streaming: On



Total Response Time	8.342 seconds
Semantic Match	40%
Semantic Analysis	A single source was found for the answer, and it is well matched. The answer did not have the searched key term "ChatGPT" backed by a reference to source documentation, which decreased the final score significantly. Statistical Details
KnowledgeBase Confidence	10%
KnowledgeBase Coverage	39%
KnowledgeBase Response Time	0.483 seconds
KnowledgeBase Results	7, with 11 filtered by Date Penalty or Score Range
KnowledgeBase Context	
NeuralSeek FAQ	10% ▾
What is Artificial Intelligence (AI) ? IBM https://www.ibm.com/topics/artificial-intelligence	7% ▾
Documentation - NeuralSeek https://neuralseek.com/documentation	6% ▾

Answer 'Provenance'

NeuralSeek Home Configure Integrate Extract Explore Seek Curate Analytics Logs

How does Neuralseek integrate with ChatGPT

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Provenance: On
Streaming: On

Sentiment

Total Response Time	8.342 seconds
Semantic Match	40%
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KnowledgeBase Coverage	39%
KnowledgeBase Response Time	0.483 seconds
KnowledgeBase Results	7, with 11 filtered by Date Penalty or Score Range

KnowledgeBase Context

NeuralSeek FAQ	10%
What is Artificial Intelligence (AI) ? IBM https://www.ibm.com/topics/artificial-intelligence	7%
Documentation - NeuralSeek https://neuralseek.com/documentation	6%

NeuralSeek: Curate

NeuralSeek		Home	Configure	Integrate	Extract	Explore	Seek	Curate	Analytics	Logs	Import Base Watson Assistant Actions ↑ Filter ▾ Load Q&A 🗄		
<input type="checkbox"/>	Category	Intent	Q&A	Coverage %	Confidence %								
✓	<input type="checkbox"/>	1 Watson_Products-chatgpg_integrate_neuralseek 📄	16? / 2										
✓	<input type="checkbox"/>	0 Other-boxcar_story_write 📄	16? / 1										
✓	<input type="checkbox"/>	0 Other-hadoop 📄	16? / 1										
✓	<input type="checkbox"/>	0 Other-bigquality 📄	16? / 1										
✓	<input type="checkbox"/>	3 Data_Products-datastage 📄	16? / 2										
✓	<input type="checkbox"/>	1 Watson_Products-analytics_compare_planning_who 📄	16? / 2										
✓	<input type="checkbox"/>	2 BI_Tools-cognos	17? / 3										
✓	<input type="checkbox"/>	0 Watson_Products-ibm_product	18? / 5										
✓	<input type="checkbox"/>	0 Other-ibm	26? / 5										
✓	<input type="checkbox"/>	1 Watson_Products-integrate_neuralseek_watson	17? / 3										

Items per page: 10 ▾ 1-10 of 20 items

1 ▾ of 2 pages

NeuralSeek: Analytics

Summary: 1) Blockchain : Updating block-chain introductory pages for use cases; refreshing developer resources supporting Hyperledger Fabric v2x versions vs. competitors Kaleido & ConsenSys (Quorum). Update quantum computing resistant algorithms appropriate cryptography materials/sidebars about security risks during transitions from legacy systems while keeping an eye towards decentralized governance protocols involving smart contract standards outside traditional supply chain visibility expectations. AI ethics sections need expansion too where transparent rollouts come into play under EU guidelines now being implemented industry wide based upon GDPR precedents setting international privacy compliance standards across multiple diverse disciplinary boundaries between data sharing / management partnerships ensuring unbiased outcomes regardless whether private public collaborative research initiatives occur within medical tech fields such like precision healthcare applications directly tied clinical settings worldwide including China India USA etc., yet balancing concerns around patent thickets hindering adoption rates among SME's which cannot afford heavy R&D investments normally associated only large enterprises possess - therefore IBM developed solutions must consider ways reduce operational costs maintaining profitability amid fierce competition but still provide tangible societal value through measurable means assessed along quantifiable success metrics wherever possible without degradation performance criteria when held against current best practices established over past decades since early cloud formation days began taking root back late last century up until present times! Narrow loses might be tolerated slightly higher risk levels however long term negative consequences simply could never acceptable because any hint weakened resilience undermining foundations fundamental strength eventually cause catastrophic cascading failures throughout whole ecosystem thus ruinous effects would linger disastrously forever changing course irrevocably once tipped beyond certain points no return ever becomes viable anymore so avoid danger zones altogether even they seem attractive short terms gains especially considering potential irreparable damages done caused harm then you wonder why people choose alternatives offering superior reliability stability above everything else always look very closely at downstream ramifications before committing fully understand all involved stakeholders actual wants needs fear tremendously losses they may personally experience after adoptpntg proposed soltions supposed solve real problems better than anyone else can right nw with perfect clarity regarding decision factors used determine final positions taken relative market dynamics forces shaping future trajectories emerging technologies bring great opportunities immense challenged complex situations requiring careful navigation nuanced expertise multidisciplinary approach leveraging divers insights combining talens acossr different spectra hopefully leading way toward genuine breakthroughs advancements benefit entire society stay safe reliable trustworthy custodians innovating responsibly thoughtful leadership making choices today shape tomorrow create positive sustainable difference far into futre hope remains constant driver pushing humankind forward together stronger inclusively equitable pieces lifting each other improving conditions leaves nobody behind ensure everyone reaches fullest potential unhindered progress unfetter access knowledge wisdom tools needed succede achieve personal growth helps fulfill universal basic human rights establish more peace justice solidarity cooperation collaboration mutual respect kindness empathye honesty integrity truthfulness openness transpaency accountability ease difficult conversatiuons instead encouraging them grow transform expand presence deeply embedded wuth communities serve customers

Lookback Period (Days)



3% Data Products 19% BI Tools 27% Watson Products 51% **Other**



Coverage (%)
Intents, sorted descending by frequency





Confidence (%)
Intents, sorted descending by frequency











NeuralSeek: Explore


NeuralSeek  Home Configure Integrate Extract **Explore** Seek Curate Analytics Logs 




LLM: Llama-2-chat 70B 


Weight Tuning 


Get Data 


-  Text
-  KB Documentation
-  Seek
-  Explore
-  REST
-  Website Text
-  Upload Document


Generate Data 



-  Send to LLM
-  Table Understanding
-  Mathematical Equation

Database Connections 


Control Flow 

Modify Data 

Send Data 

Visual Editor  NTL Editor 

Video on how Explore works
<https://youtu.be/1Wi7pVjLvdU>

Output Format: **Inline**  Microsoft Word

Further information

Videos

https://www.youtube.com/@Cerebral_Blue/featured

<https://www.youtube.com/watch?v=55nZ8rU9IM0>

Training and Documentation

<https://academy.neuralseek.com/> (contact kent.mihlbauer@cerebralblue.com for the password)

<https://neuralseek.com/documentation>





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