EN   Search

Elastic   Features   Capabilities   Elasticsearch   Kibana   Integrations   Docs
Stack

Production-ready billion scale vector database — Elasticsearch

Elasticsearch's **open source** vector database offers an efficient way to create, store, and search vector embeddings.

Combine text search and **vector search** for hybrid retrieval, resulting in the best of both capabilities for greater relevance and accuracy.

Start free trial

Discover the latest innovations that make Elasticsearch and Lucene the top choice for vector databases.

Read blog $\longrightarrow$

Learn to use Elasticsearch as a vector database for embeddings, powering search and building use cases like retrieval augmented generation (RAG), summarization, and Q&A.

Discover more on Search Labs $\longrightarrow$

Elastic is the first to offer better binary quantization (BBQ), an optimization for vector databases with faster, more accurate vector search and 95% memory reduction.

Learn more about BBQ $\longrightarrow$

Elasticsearch — the most widely deployed vector database

Copy to try locally in two minutes

```
curl -fsSL https://elastic.co/start-local | sh
```

Read docs $\longrightarrow$

Deploy for production

Start free cloud trial

Or, **download on-prem**

A vector database is your starting point…

You need more than a vector database for a great search experience. Elasticsearch offers multiple retrieval types, flexible machine learning models, and advanced search features like aggregations, filtering, and auto-complete.

Run in the **cloud**, **serverless**, on-prem, or air gapped.

Read Elasticsearch Relevance Engine docs ⟶

Create inference endpoint ⌃

Use a machine learning model and apply it to your data at ingestion time.

Learn more about **inference API** & **E5 model**.

```
        "num_allocations": 1,
        "num_threads": 1,
        "model_id": ".multilingual-e5-small"
    }
}
```

Generate embeddings ⌄

Index embeddings ⌄

Search embeddings ⌄

Use filters and faceting to refine search ⌄

Combine retrieval methods with hybrid search ⌄

Apply document-level security and compliance authorization ⌄

VECTOR DATABASE INTEGRATIONS

cohere

🤗 **Hugging Face**

LlamaIndex

Amazon Bedrock

MISTRAL AI_

Why use a vector database?

Try it using the AI Playground →

... intent and contextual meaning beyond text matching.

Try hands-on learning ⟶

Search across all your data: text, vector, image, audio, video, geo, or unstructured data.

Field mapping types ⟶

... augmented generation workloads for GenAI search experiences using vector and hybrid techniques.

ChatGPT and private data ⟶

Vector database superset

Choose a vector database based on the vector search experience you want to build.

	Some vector databases	Elasticsearch
Embeddings		⌄
Store embeddings		
	full support	full support (free)

	some support	full support (paid)

Retrieval	⌃

Machine learning	⌃

Search experience tools	⌃

Elastic tools	⌃

Elasticsearch — in action

See how organizations are building AI search applications to improve customer experience and help users find exactly what they're looking for.

See more customer stories ⟶

CUSTOMER SPOTLIGHT

Reed

Reed, the UK's largest recruiter, brings job searchers and employers

CUSTOMER SPOTLIGHT

stack**overflow**

Stack Overflow combines the power of human experts with generative AI to

CUSTOMER SPOTLIGHT

Adobe

Adobe scales, manages multiple use cases, and puts machine learning features

developer
knowledge bases.

Learn more ⟶   Learn more ⟶   Learn more ⟶

Get started implementing vector search

Blogs

Webinars

Demo projects

Fast-track
to
production:
Vector
databases
with Elastic
and
LlamaIndex ⟶

AI search:
ChatGPT for
Elasticsearch
docs ⟶

**Search
Labs** ⟶

Semantic
search
excellence:
Getting
started
with AI ⟶

Try more
examples
from
Elasticsearch
Labs ⟶

A timeline
of vector
search
innovations ⟶

Frequently asked questions

numerical representations of data objects, also known as vector embeddings. It uses vector embeddings for multi-modal search across a massive data set of structured, unstructured, and semi-structured data, such as images, text, videos and audio. Vector databases are built to manage vector embeddings and therefore offer a complete solution for data management.

What are vector embeddings? ⌃

What are the benefits of a vector database? ⌃

Is Elasticsearch a vector database? ⌃

Why choose Elastic as your vector database? ⌃

ABOUT US

About Elastic

Leadership

DE&I

PARTNERS

Find a partner

Partner login

Request access

INVESTOR RELATIONS

Investor resources

Governance

Financials

JOIN US

Careers

Career portal

How we hire

Trust center

EthicsPoint portal

ECCN report

Ethics email

Previous winners

ElasticON Tour

Become a sponsor

All events