

VECTOR DATABASES

5 ESSENTIAL THINGS YOU NEED TO KNOW

Definition and Importance Vector databases are suitable for similarity search, natural

language processing, and computer vision. They offer a structured approach to understanding complex patterns inside vast amounts of data.

Unlike relational databases, they use fixed-dimensional vectors to group data based on similarities, allowing for quick queries, which benefits Al-powered applications.

2. What should you look for when choosing a vector database?

This is a key function that quickly enables to find vectors in the database that are most similar to a given

SIMILARITY SEARCH EFFICIENCY



query vector.

These are key for quick retrieval of data. The database needs to offer efficient and reliable indexing

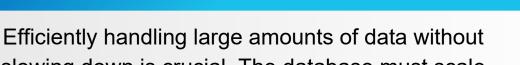
INDEXING MECHANISMS



mechanisms suitable for high-dimensional vector data.

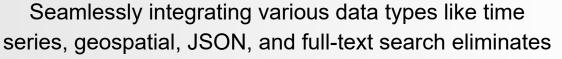
slowing down is crucial. The database must scale horizontally and vertically to meet the growing data

SCALABILITY



STREAMLINED DATA MANAGEMENT

the need for multiple systems. Plus, it offers powerful vector search capabilities.



3. Top Applications of

Vector Databases

Potential use cases of vector storage and similarity

search across several industries and

applications: E-commerce Chatbots & customer

recommendations

Multimodal search

support

Generative Al

4. Combining Vector Data with Other Types of Data

To combine vector data with other types of data (structured, semi-structured, and unstructured), a multimodel database with a vector store suffices for most cases. It offers vital features like vector and similarity search.

Another benefit is the ability to make complex queries,

joins, aggregations, and full-text searches.

5. CrateDB Vector Store

CrateDB is an open-source, multi-model, and distributed database that offers high performance, scalability, flexibility, and the capability to store and search vector data to accelerate Al projects.

Interested to know more?

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Statement

SELECT text, _score

|Sending the mission

5 6

7

2

3

6

8 9

10 11 Result