

Conocimiento Tecnológico Aplicado

Servicios digitales
más inteligentes,
más ágiles,
más humanos



Vector DBs

Recuerdos de una IA

Ponente
Roberto Sánchez Custodio

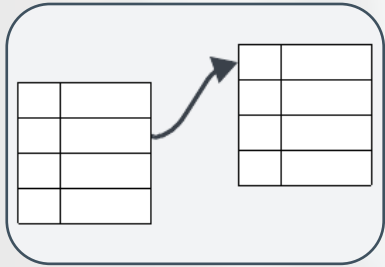




1.

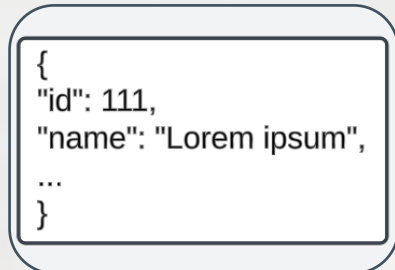
BBDD Tradicionales vs Vectoriales

BBDD tradicionales



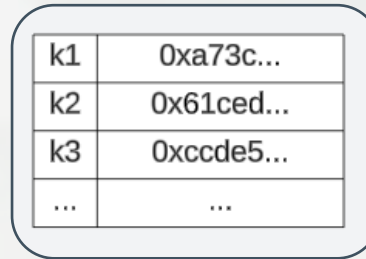
Relacional

PostgreSQL
MySQL
Oracle
...



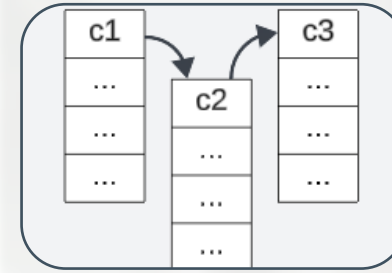
NoSQL
Documentos

MongoDB
Firestore
Apache CouchDB
...



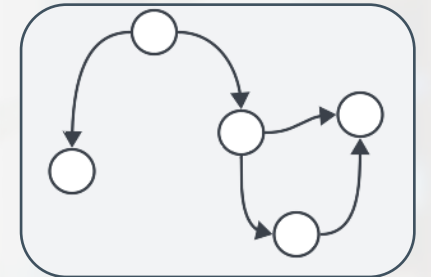
NoSQL
Key-Value

Redis
LevelDB
RocksDB
...



NoSQL
Columns

Apache Cassandra
Google BigTable
Apache HBase
...



Grafos

Neo4j
OrientDB
Amazon Neptune
...

BBDD vectoriales

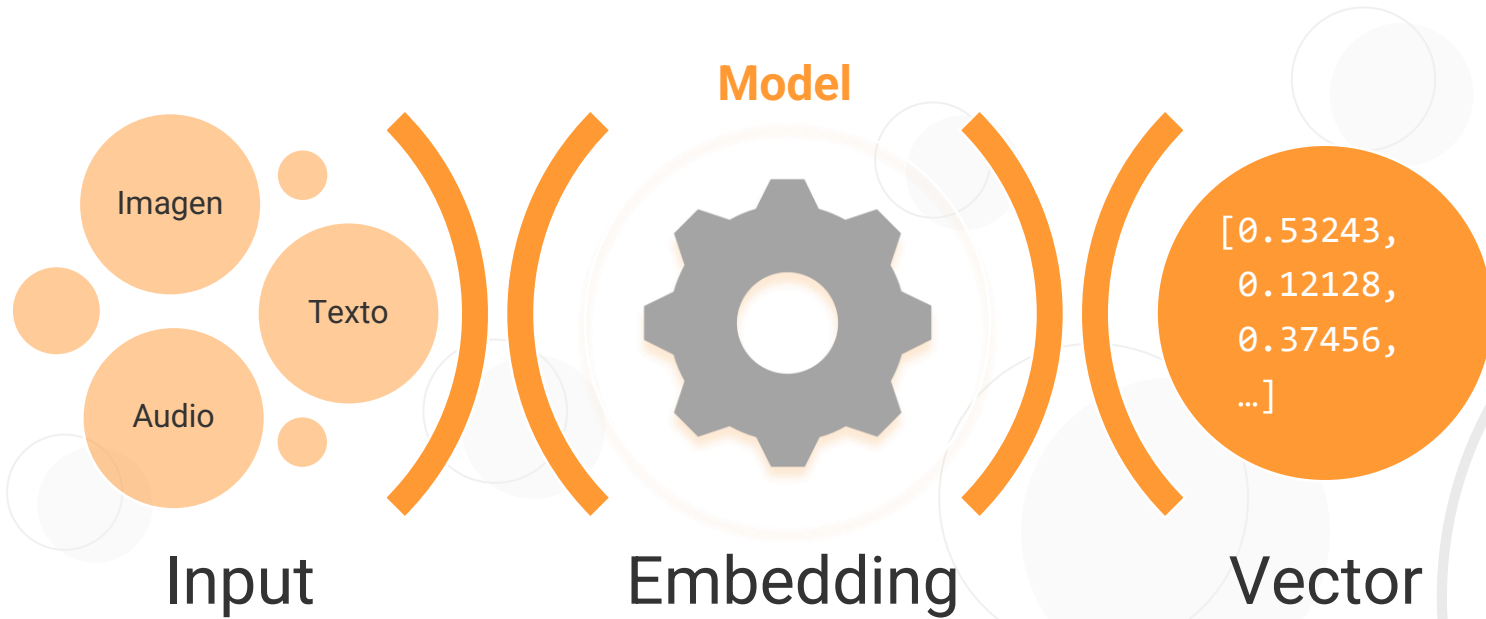
ID	Vector	Metadata
<int> <uuid>	[0.12313, 0.4567, 0.87174, 0.2512, 0.76846, 0.3982, 0.49271, ...]	<pre>{ "field1": 1626, "field2": "Lorem ipsum..." }</pre>





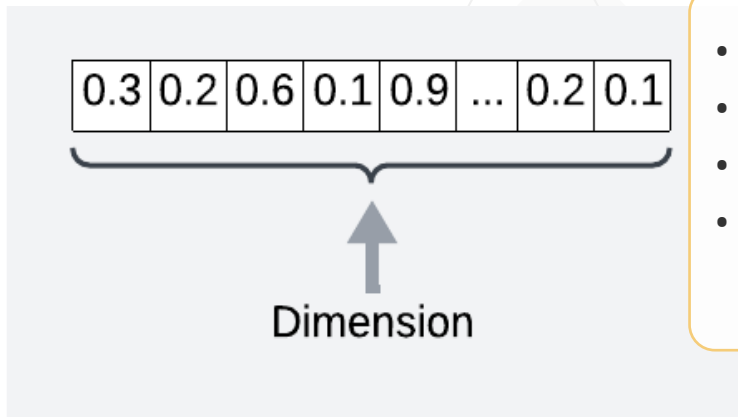
2. Conceptos BBDD Vectoriales

Embedding



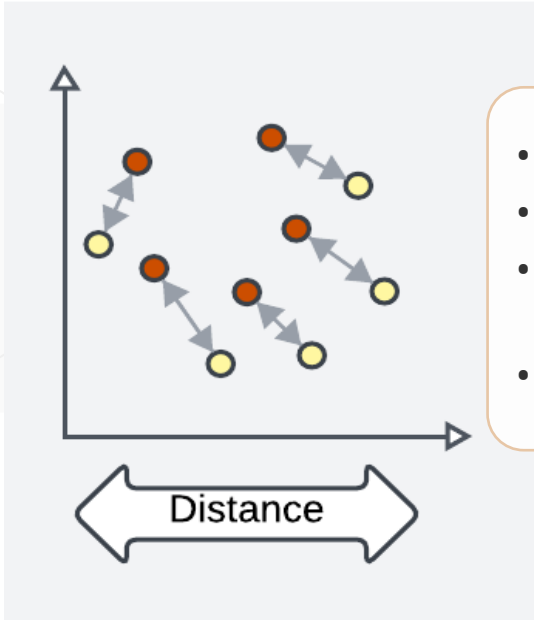
Dimensión & distancia

Dimension

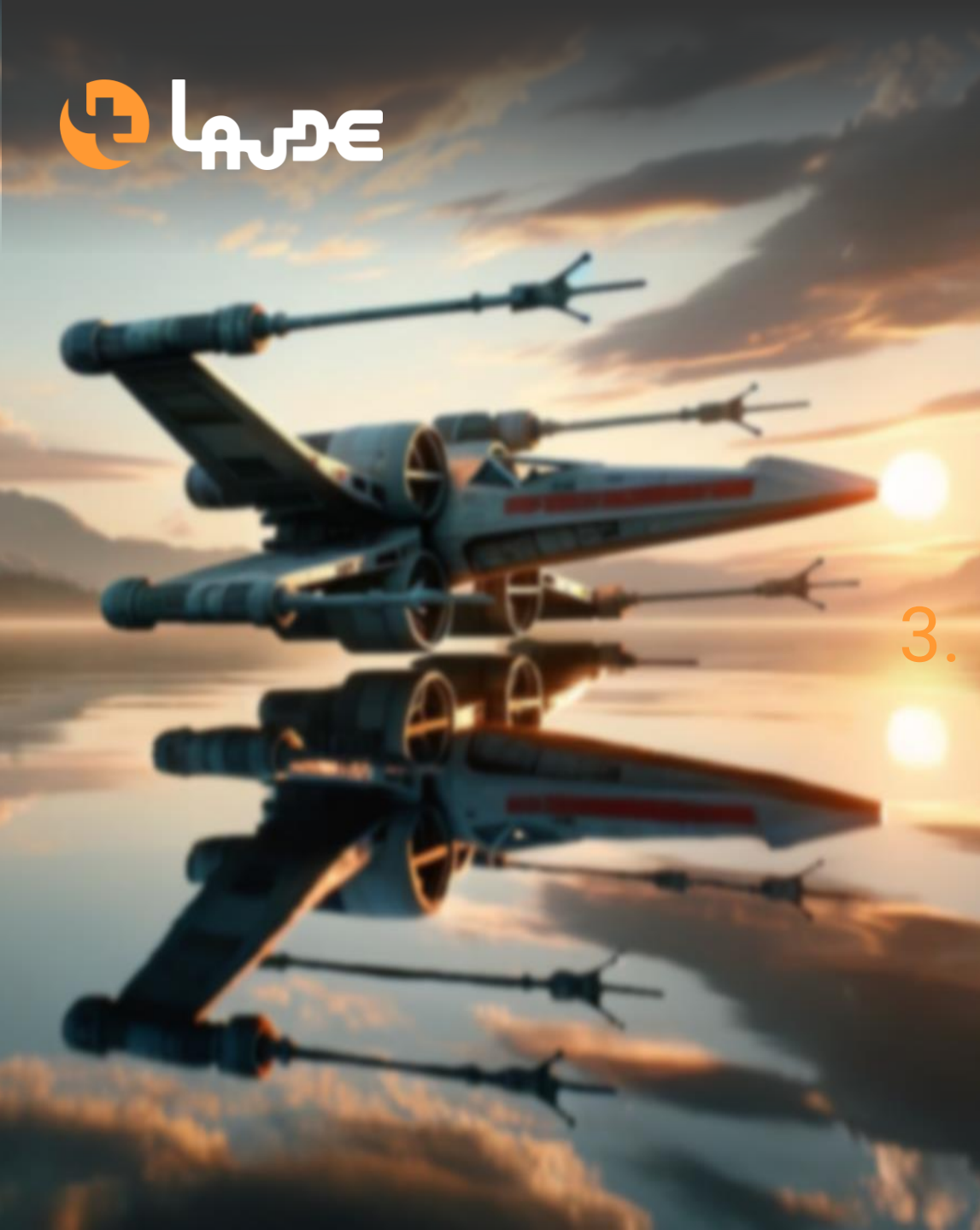


- 1536
- 738
- 384
- ...

Distance



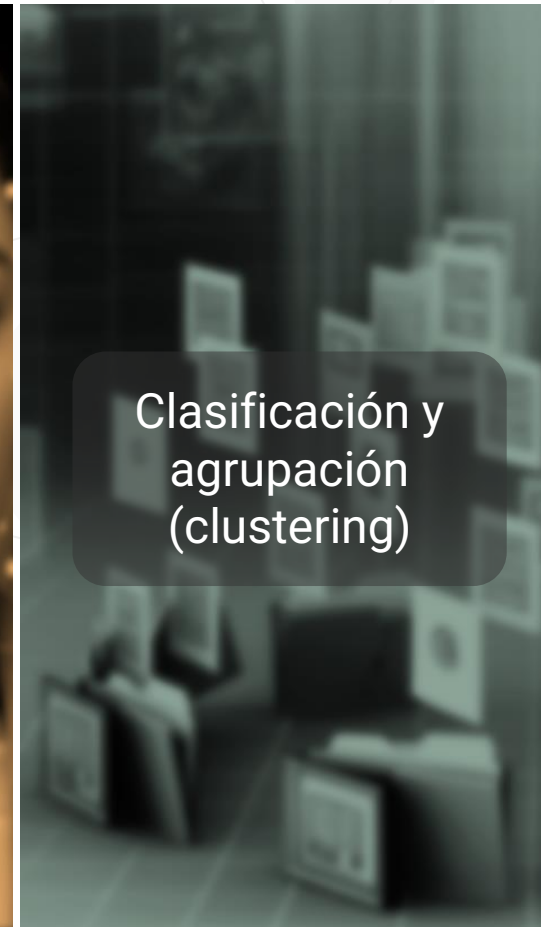
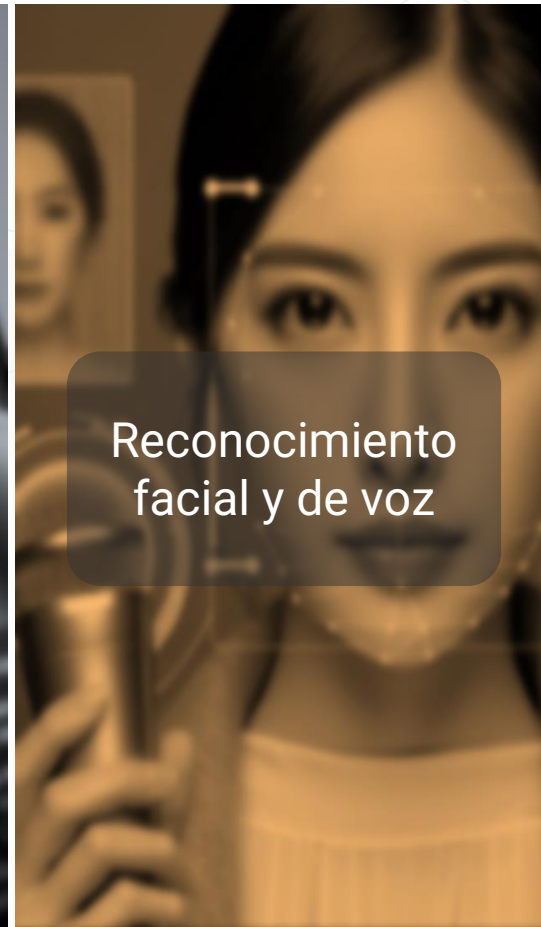
- Cosine
- Dot Product
- L2. Euclidean distance
- ...

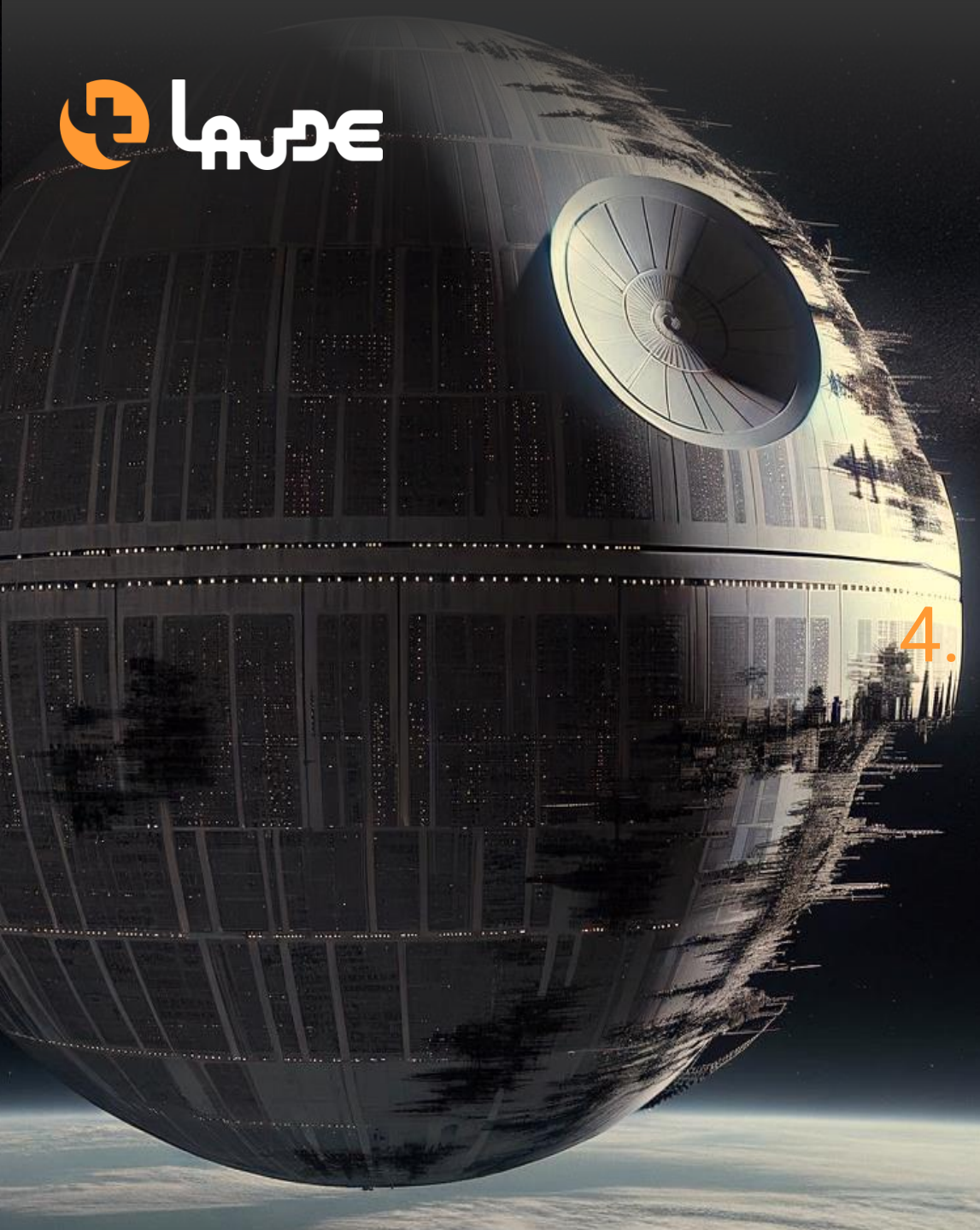


3.

Usos comunes

Usos comunes



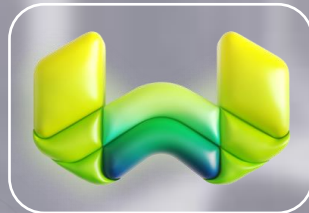


BBDD Vectoriales en el mercado

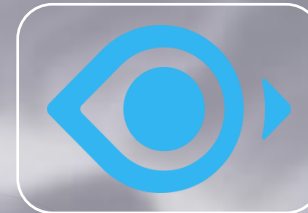
Opciones Open Source



Qdrant
qdrant/qdrant



Weaviate
weaviate/weaviate



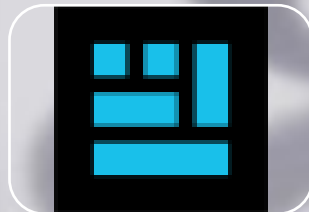
Milvus
milvus-io/milvus



pgvector
pgvector/pgvector



ChromaDB
chroma-core/chroma



CrateDB
crate/crate



FAISS
facebookresearch/faiss



SQLite-vss
asg017/sqlite-vss

Opciones Cloud (VaaS)



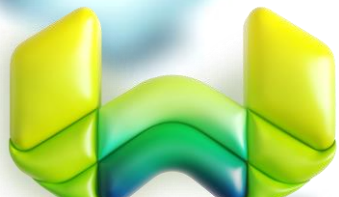
Pinecone
<https://www.pinecone.io/>



Qdrant
<https://cloud.qdrant.io/>



Zilliz
<https://cloud.zilliz.com/>



Weaviate
<https://weaviate.io/>



Vertex AI Vector Search
<https://cloud.google.com/vertex-ai>



Vectorize
<https://developers.cloudflare.com/vectorize/>



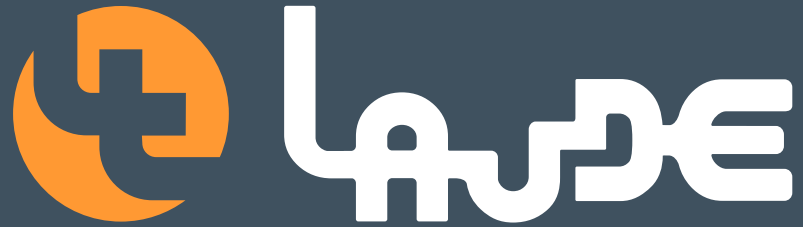
Casos prácticos

Casos prácticos

Búsquedas semánticas & Chatbot basado en LLM con datos privados



<https://github.com/LaudeTech/ai-vector-dbs>



Conocimiento Tecnológico Aplicado

Servicios digitales
más inteligentes,
más ágiles,
más humanos



Vector DBs

Recuerdos de una IA

Ponente
Roberto Sánchez Custodio

