

GMBH

q drant

Qarant

Enterprise-Ready, Massive-Scale Vector Search Technology for the Next Al Generation



Qdrant at a glance

Overview

CHARACTERISTICS

- Best available performance, blazing fast and accurate.
- Rich feature set for resource optimization.
- High-scale, distributed, durable and cloud-native.

HIGHLIGHTS

- Fastest, feature-rich, advanced open-source vector database.
- Available as open-source, managed cloud or on-premise deployment
- Integrated with popular frameworks like jina.ai, LLaMa Index, LangChain, Haystack, etc.
- Partnering with LLM providers like Cohere AI, Aleph Alpha, OpenAI
- Used and trusted by top innovative companies worldwide

TRACTION

Top

open-source vector search database on GitHub, >14K Stars

> 10 K

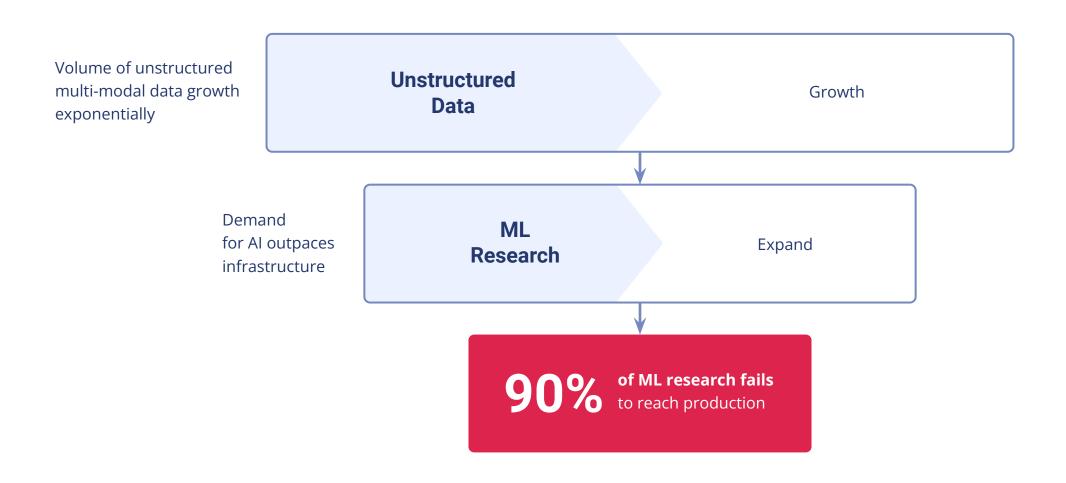
OS Adopters Worldwide

> 5 M

Downloads

Demand for Al outpaces infrastructure

The global datasphere will grow to 163 zettabytes by 2025, and about 80% of that will be unstructured



Vector Search



An essential part of the Al Transformation

INDUSTRIES

HR-Tech

Ad-Tech

Online Dating

Gig Economy

E-Commerce

Law-Tech

Fashion

Ed-Tech

Media & News

Biometrics

Med-Tech

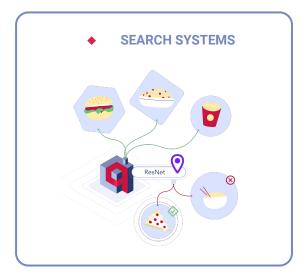
Anti-fraud

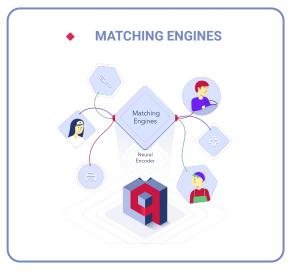
Agriculture

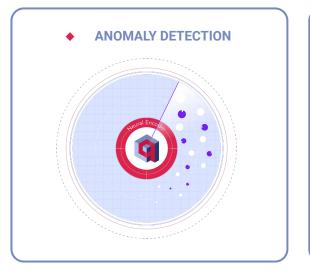
Manufacturing

Streaming Services

Marketplaces









Emerging use cases

Fundamental building block of the new Al Stack

LLM Memory

Copilot for X











Vector Database



ChatGPT/LLMs







Qdrant – the fastest **Vector Database**



BY SEARCH SPEED

Up to 10 times faster according to benchmarks



BY ADOPTION

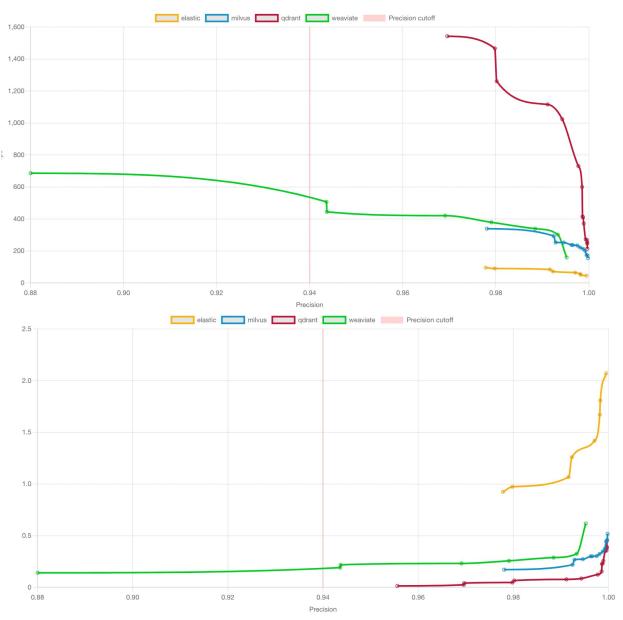
>10000 Production
Deployments



BY DEVELOPMENT SPEED

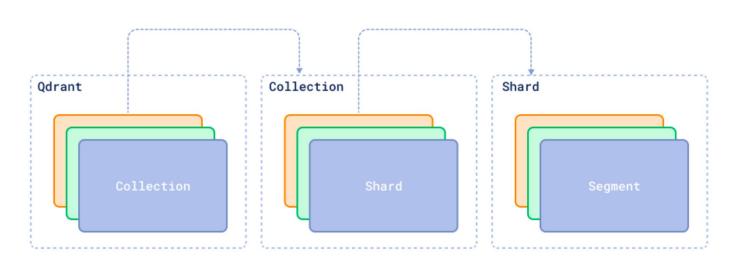
Get started in minutes





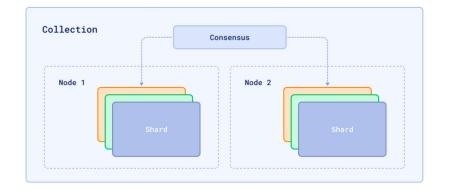
Engine Architecture

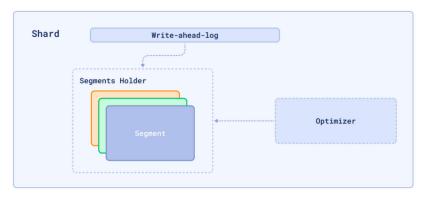
Well-thought from Hardware Optimization to Distribution with Raft



Designed for Performance & High Availability

- Implemented from scratch entirely in Rust
- Flexible architecture with segments on storage level
- Horizontal scaling out with sharding and distributed deployment.
- Replication for HA and throughput gain

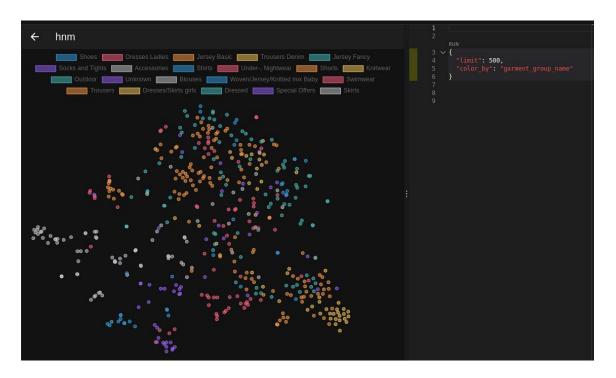




Superb Features

Flexibility in cost and performance setup options

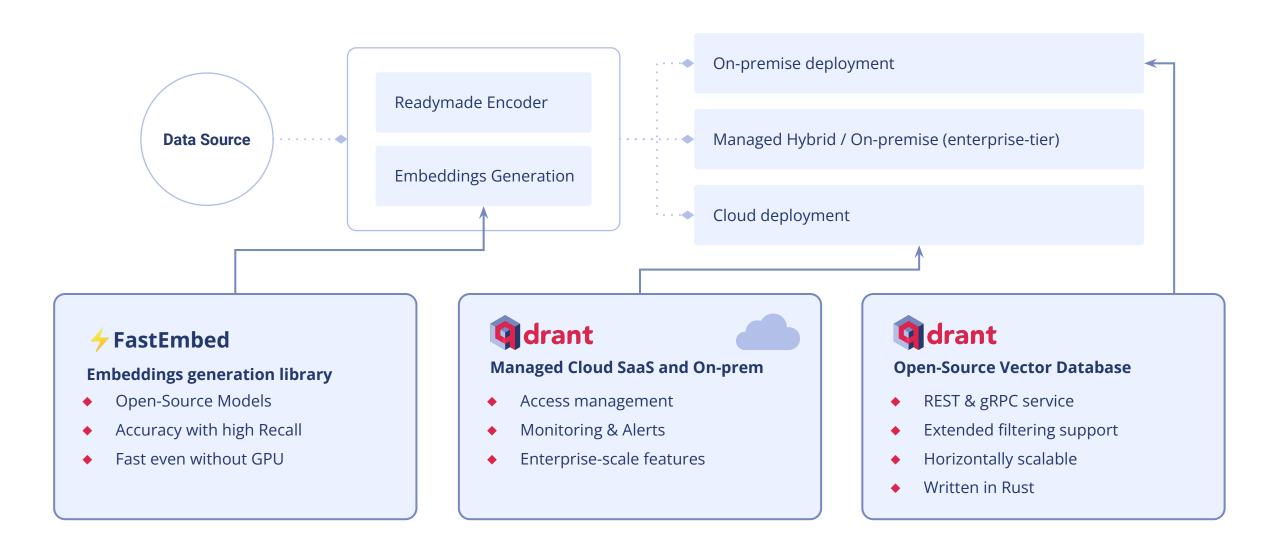
- Advanced one-stage Filtering Store any kind of data including geolocation along with vectors and filter search results.
- Scalar, Product, and unique Binary Quantization Up to 64x Memory usage reduction and x40 search speed up.
- Memory Maps and <u>IO Uring</u>
 Effective on-disk storage options and low level hardware optimization.
- Zero-downtime update of vectors in case of model switch (blue-green deployment)
- Advanced multi-tenancy support
- Read/Write segregation and dynamic read scaling
- TTL and large bulk operations without affect on retrieval speed
- Payload-based sharding



Unstructured Data Visualization Vectors visualization dashboard using t-SNE dimensionality reduction algorithm.

Product Overview





Feedback



Hooman Sedghamiz

Director AI /ML, Bayer

Vectorstores are definitely here to stay, the objects in the world around us from image, sound, video and text become easily universal and searchable thanks to the embedding models and vectorstores.

I personally **recommend Qdrant**. we have been using it for awhile and **couldn't be happier**.



Andrew Rove

Principal Engineer, GLG

We have been using Qdrant in production now for over 6 months to store vectors for cosine similarity search and it is **way more stable and faster** than our old ElasticSearch vector index. No merging segments, no red indexes at random times. It just works and was super easy to deploy via docker to our cluster.



Christopher Prohm

Data Scientist & Topic Lead, Volkswagen

My feedback is: **Qdrant is a great** piece of tech!



Hamza Farooq

Sr. Researcher, Google, Lecturer, Stanford

I've been a really **big fan of Qdrant** and teaching a course on LLMs using qdrant for storing embeddings and indexing.



Olaf Górski

Sr. Al Engineer, SumUp

I was evaluating different vector store for use in our upcoming launch of a new production feature. TLDR: **qdrant won** for our use case in certain aspects, hence. I made the decision to roll with it.

The ease of use is & getting started is amazing!



Prashanth Rao

Sr. Al Engineer, Royal Bank of Canada

I absolutely **love using Qdrant**, and I really hope you secure a huge round of Series A/B funding in the years to come! Looking forward to evangalizing more amazing Rust-based software like yours, so thank you for building something so cool!



Adrien Biarnes
Senior DS @ Dailymotion

...So I looked into it and found that VertexAI had exactly this service called Matching Engine. So we tried it out but we also found Qdrant.

So we benchmarked the 2 **and it was a no-brainer.** It cost us a big pile of money to create the indexes with Matching Engine... Also, the Matching Engine API is very poor compared to Qdrant. Considering the price of the service it almost feels like being ripped off.



Arbaaz KhanML Infrastructure @ **Doordash**

Our vector search is mostly around similarity search with metadata filtering. There are several different types of application use cases that depend on this central concept and would have disparate scale requirements ranging from 10M–500M vectors. Our benchmark testing gave remarkable performance vs milvus. Already starting to **see Qdrant emerge as the winner.**



Alex Webb

Director of Engineering @ CB Insights

We looked at all the big options out there right now for vector databases, with our focus on ease of use, performance, pricing, and communication. **Qdrant came out on top in each category**... ultimately, it wasn't much of a contest.



Mike Gugel

Data engineer @ Bauhaus

We're trying Qdrant lately in a PoC-like project dealing with mass similar images search as the vector-db for storing the embeddings and pretty happy with it, thank you for creating such an awesome piece of software, it's blazingly fast, super dev-ops friendly, very convenient to use, **totally a big like!**



Jon Tse
Senior director of R&D @ JCV (by Softbank)

Qdrant is the best Vector Similarity Search Engine ever, as **every other VSS broke** during our our high load and performance testing. If we find any issues, the Qdrant team fixes the fastest and improves on things beyond!



Thank You

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