

New York Unstructured Data Meetup

Presented by:



zilliz



milvus



Unstructured Data Meetup | Host



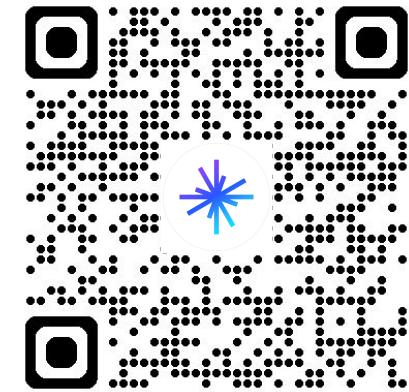
Tim Spann

Principal Developer
Advocate, Zilliz

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<https://www.linkedin.com/in/timothyspann/>

<https://x.com/PaaSDev>



Code of Conduct

Be respectful and kind

When communicating with all event participants, speakers, and hosts. Be considerate

All ideas are welcome

Be present and participate actively in discussions. Ask questions and reach out for help when needed.

Report inappropriate behavior

Any inappropriate behavior is not tolerated at this event. Inform a Zilliz team member immediately if you see any behavior deemed inappropriate

Getting Started with Vector Databases

Milvus

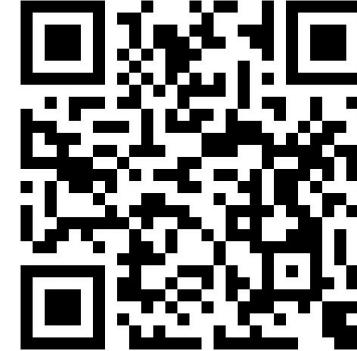
Open Source Self-Managed



github.com/milvus-io/milvus

Zilliz Cloud

SaaS Fully-Managed



zilliz.com/cloud

Zilliz is Hiring!

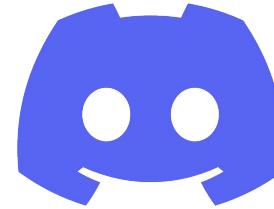
Join our
Team

Zilliz.com/careers

- Developer Advocate
- Senior Software Engineer
- Staff Software Engineer
- Solutions Architect



Join the Milvus Discord!



Become a Speaker!



Interesting in speaking at and/or sponsoring a Zilliz Unstructured Data Meetup? Fill out this form!



**Have you built
something cool
using Milvus or
Zilliz? We want to
hear all about it.**

Share Your Story



Star Milvus
for a chance
to win a prize
tonight!





@Zilliz, @Milvus



@zilliz_universe, @milvusio

Share your photos!

#ZillizUnstructuredData



Welcome Speakers

TECH TALK 1

Modern Analytics &
Reporting with Milvus
Vector DB and GenAI



Bill Reynolds
CTO, Quarbine

TECH TALK 2

cuVS+Milvus



Corey Nolet
Principal Engineer, NVIDIA

TECH TALK 3

Combining Hugging Face
Transformer Models and
Visual Data with FiftyOne



Jacob Marks
Senior Machine Learning
Engineer & Researcher,
Voxel51



Join us at our next meetup!
lu.ma/unstructured-data-meetup



Quick Intro to Unstructured Data, Edge AI and Milvus



Tim Spann
Principal Developer Advocate, Zilliz

Welcome to New York!

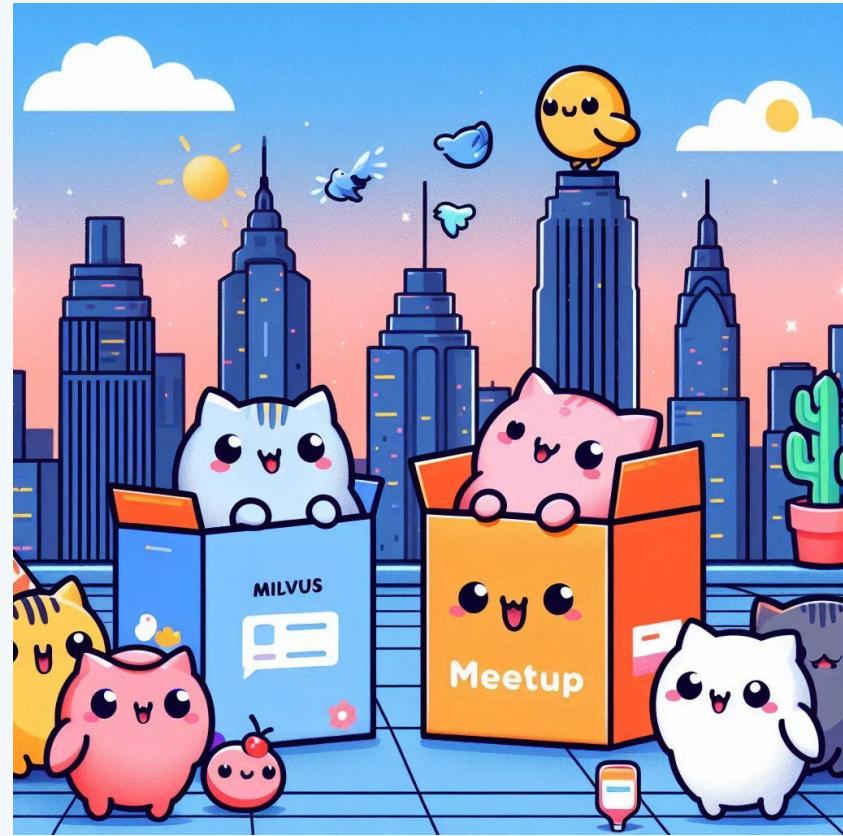
Tim Spann @ Zilliz



Slides



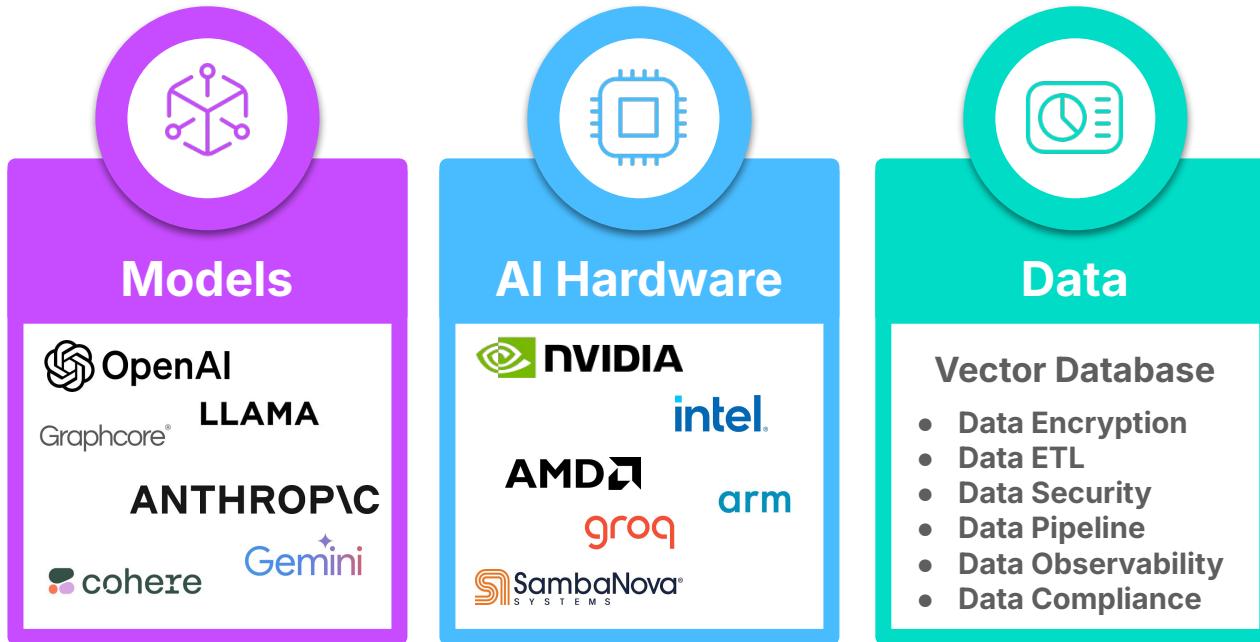
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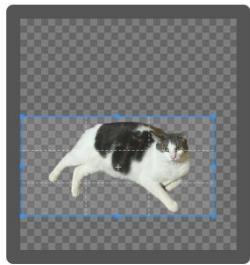
01

Introduction

Three Pillars of GenAI & the opportunities they bring



[Back to Demo](#)



Upload Image

Search Result:
Duration: 35.93 ms



Sorted by Similarity metric



Similarity Metric: 0.470426



Similarity Metric: 0.485934



Similarity Metric: 0.520233



Similarity Metric: 0.534563



Similarity Metric: 0.536320



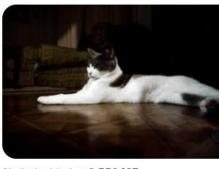
Similarity Metric: 0.540569



Similarity Metric: 0.539228



Similarity Metric: 0.544466



Similarity Metric: 0.550427



Similarity Metric: 0.537707



Show Me



Lots
of Slides

Cool Demo

<https://milvus.io/milvus-demos/reverse-image-search>

Show Me Another Demo

zilliz

What is Milvus used for?

Ask Random Question Ask

The High-Performance Vector Database Built for Scale

ID	SCORE	QUESTION	ANSWER
450933285167028738	0.8684593439102173	What is Milvus?	The High-Performance Vector Database Built for Scale
450933285167028426	0.33861032128334045	The benefits from anti aging creams are the following except that	they make wrinkle faces rough
450933285167028302	0.3009645640850067	To prevent from catching a cold or flu , it 's good for you	to wash all parts of your hands
450933285167027798	0.2908312678337097	What is the function of our immune system ?	To destroy the troublemakers in order that they might not hurt the body .
450933285167028154	0.2765984535217285	Why is art therapy useful to patients with physical or emotional illnesses ?	It helps improve their social skills .
450933285167028454	0.26567766070365906	When Sarah went to school , she was wearing	blue jeans and a Jonas Brothers T - shirt
450933285167028658	0.2627016305923462	What is the special infill used to do ?	To collect water from rainfall .
450933285167028235	0.26243868470191956	The previous study found that	children 's math achievement is related to parents ' attitude about math
450933285167028102	0.25130075216293335	What do we know about TeliaSonera ?	It is in the charge of Pasi Kostinten
450933285167028620	0.2511159682273865	The MMORPGs are created by Jane McGonigal to	develop gamers ' problem - solving skills



<https://zilliz-semantic-search-example.vercel.app/>

Milvus: From Dev to Prod

AI Powered Search made easy



Milvus is an **Open-Source Vector Database** to store, index, manage, and use the massive number of **embedding vectors** generated by deep neural networks and LLMs.



285+



28K+



50M+



2K+

contributors

stars

downloads

forks

Higher scalability

10B vectors

of 1536 dimensions
in a single Milvus/Zilliz Cloud
instance

100B vectors

in one of the largest deployment

Raspberry Pi AI Kit - Hailo
Edge AI



Milvus



<https://medium.com/@tspann/unstructured-data-processing-with-a-raspberry-pi-ai-kit-c959dd7fff47>



<https://github.com/tspannhw/ AIM-XavierEdgeAI>



<https://medium.com/@tspann/edgeai-edge-vector-database-6a9b5238bffb>

RESOURCES



Vector Database Resources

Give Milvus a Star!



<https://github.com/milvus-io/milvus>

Chat with me on Discord!



Generative AI Resource Hub

Tutorials, Code Examples, and Best Practices for Developing and Deploying GenAI Applications.



Learn



Build

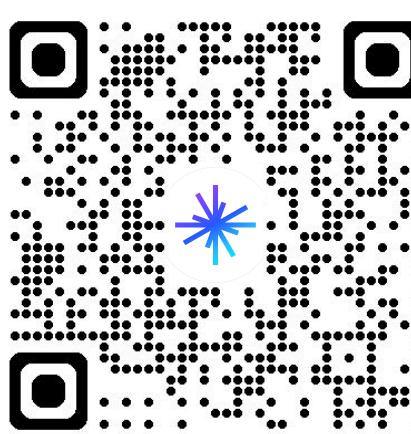


Explore

<https://zilliz.com/learn/generative-ai>



Unstructured Data Meetup



<https://www.meetup.com/unstructured-data-meetup-new-york/>

This meetup is for people working in unstructured data. Speakers will come present about related topics such as vector databases, LLMs, and managing data at scale. The intended audience of this group includes roles like machine learning engineers, data scientists, data engineers, software engineers, and PMs.

This meetup was formerly Milvus Meetup, and is sponsored by [Zilliz](#) maintainers of [Milvus](#).

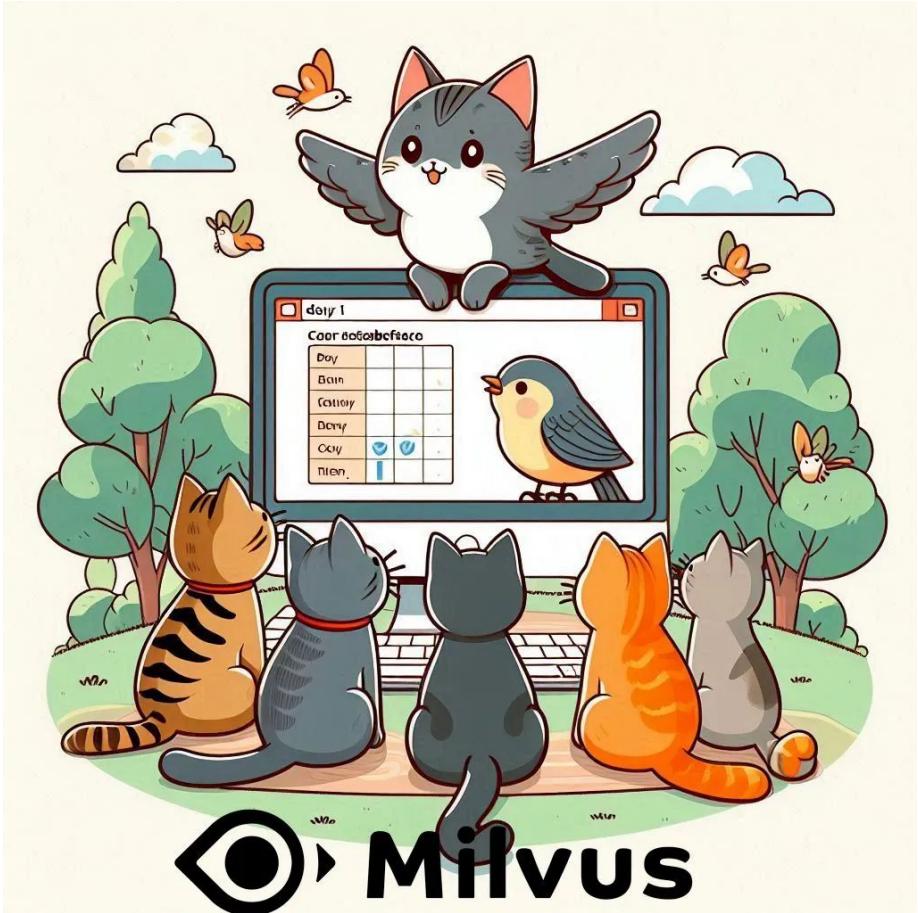




<https://medium.com/@tspann/unstructured-street-data-in-new-york-8d3cde0a1e5b>



<https://medium.com/@tspann/not-every-field-is-just-text-numbers-or-vectors-976231e90e4d>



 Milvus

<https://medium.com/@tspann/shining-some-light-on-the-new-milvus-lite-5a0565eb5dd9>



Extracting Value from Unstructured Data

Example

- A company has 100,000s+ pages of proprietary documentation to enable their staff to service customers.

Problem

- Searching can be slow, inefficient, or lack context.

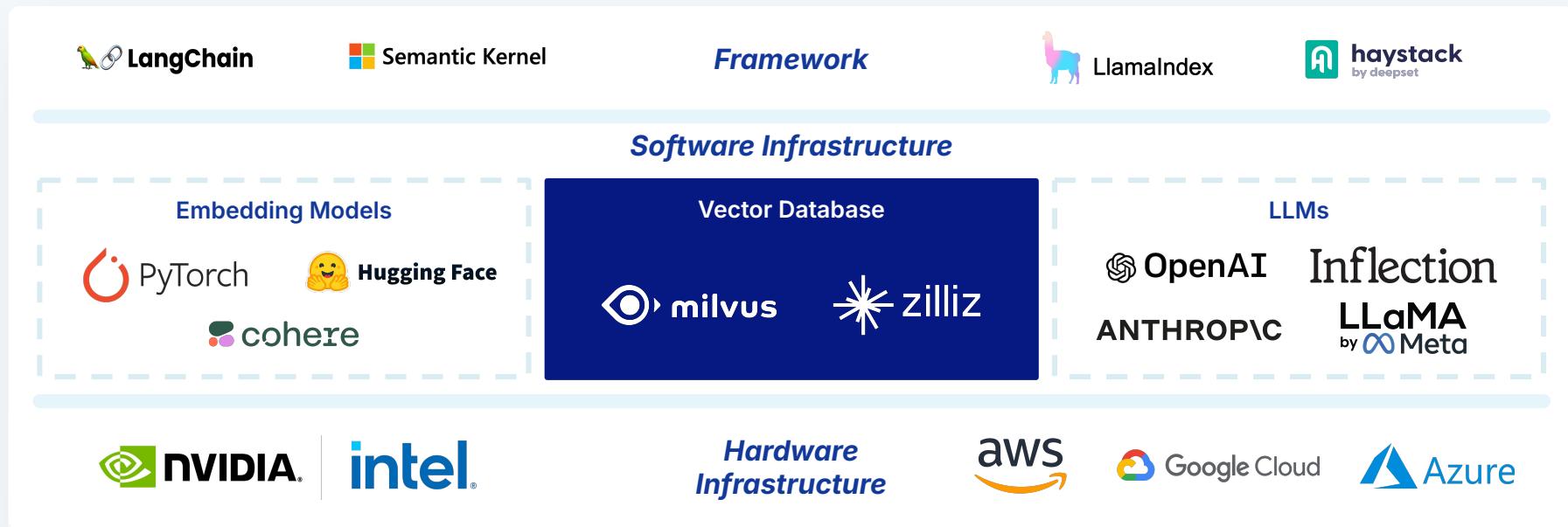
Solution

- Create internal chatbot with ChatGPT and a vector database enriched with company documentation to provide direction and support to employees and customers.



<https://osschat.io/chat>

Well-connected in LLM infrastructure to enable RAG use cases



AIM Weekly by Tim Spann



<https://bit.ly/32dAJft>

<https://github.com/milvus-io/milvus>

This week in Milvus, Towhee, Attu, GPT Cache, Gen AI, LLM, Apache NiFi, Apache Flink, Apache Kafka, ML, AI, Apache Spark, Apache Iceberg, Python, Java, Vector DB and Open Source friends.

Thank you!



milvus.io



github.com/milvus-io/



[@milvusio](https://twitter.com/milvusio)

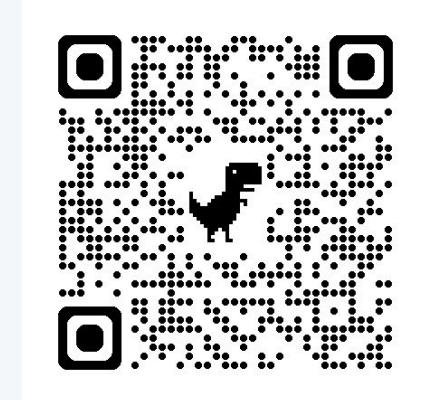
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Join us at our next meetup!
meetup.com/unstructured-data-meetup-new-york/

THANK YOU



Feature	Pinecone	Milvus	Remarks
Deployment Modes	SaaS-only	Milvus Lite, On-prem Standalone & Cluster, Zilliz Cloud Saas & BYOC	Milvus offers greater flexibility in deployment modes.
Supported SDKs	Python, JavaScript/TypeScript	Python, Java, NodeJS, Go, Restful API, C#, Rust	Milvus supports a wider array of programming languages.
Open-source Status	Closed	Open-source	Milvus is a popular open-source vector database.

Feature	Pinecone	Milvus	Remarks
Scalability	Scale up/down only	Scale out/in and Scale up/down	Milvus features a distributed architecture for enhanced scalability.
Availability	Pod-based architecture within available zones	Available zone failover and cross-region HA	Milvus CDC (Change Data Capture) enables primary/standby modes for higher availability.
Perf-Cost (Dollar per million queries)	Starts at \$0.178 for a medium dataset, \$1.222 for a large dataset	Zilliz Cloud starts at \$0.148 for a medium dataset, \$0.635 for a large dataset; free version available	Refer to Cost Ranking report .

Feature	Pinecone	Milvus	Remarks
GPU Acceleration	Not supported	Support NVIDIA GPU	GPU acceleration significantly enhances performance, often by orders of magnitude.