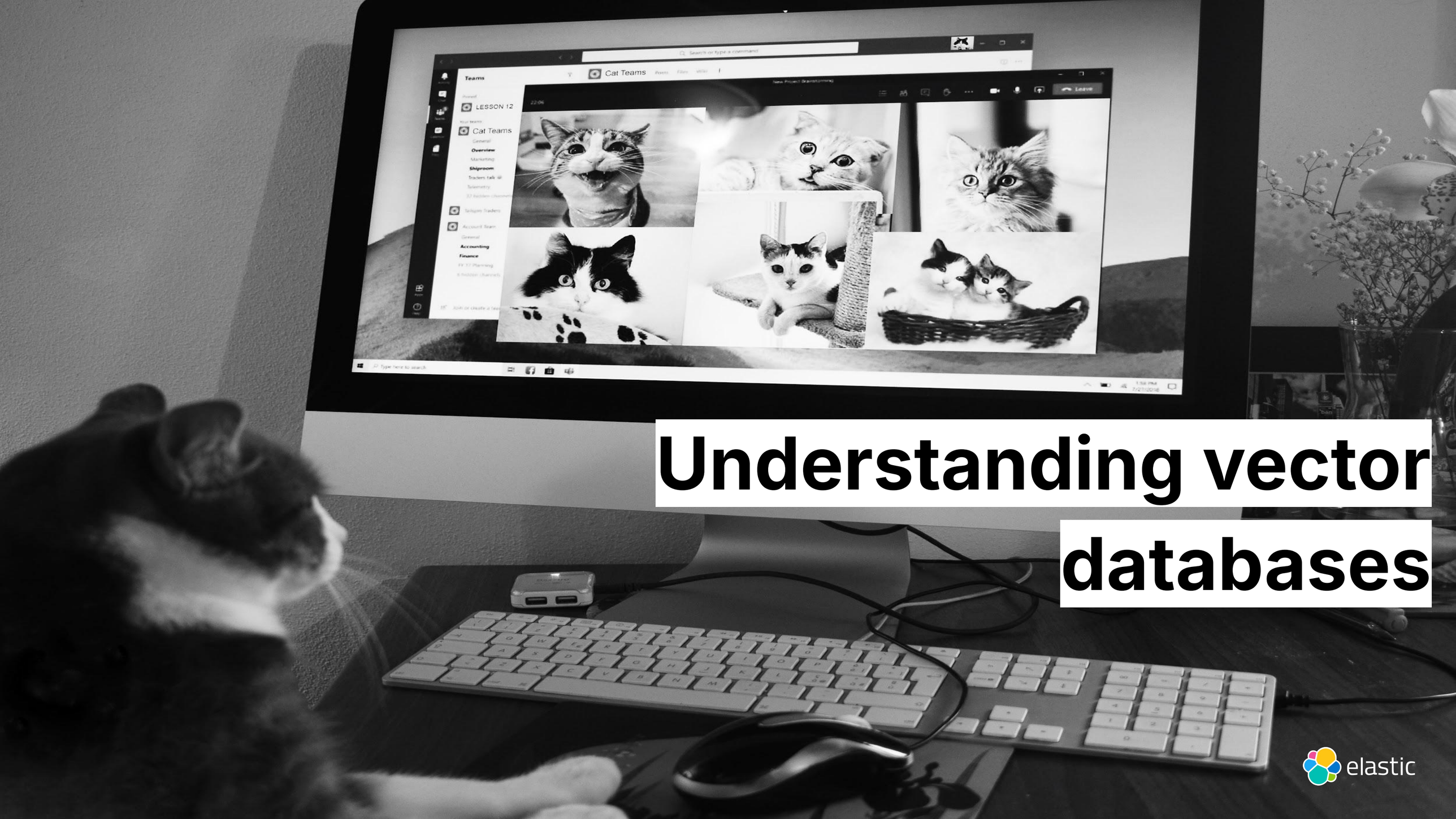

Understanding vector databases

elastic

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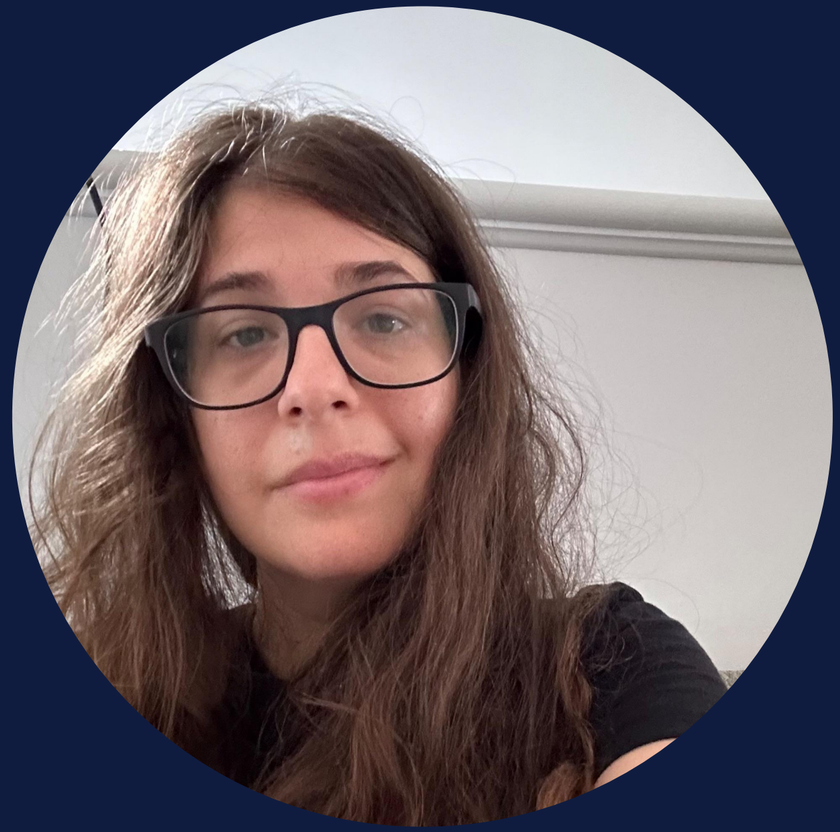
Senior Developer Advocate



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Playground TECH PREVIEW

Chat Query

Data View code

AI Searching for "What does ICLC stand for?"

AI Grounding answer based on 3 document sources

AI responded at 15:29 890 / 16,385 tokens sent

Summary

ICLC stands for the International Conference on Live Coding. It is an event dedicated to exploring and implementing the use of computer code as a live performance element. The conference has been held in various countries and aims to provide insights into live creative practices from technical, philosophical, educational, and governance perspectives [2].

Citations

ID	
b3f2eaec-dbe4-44fd-91f8-0d28631e1883	Snippet

JG

You asked at 15:30

Thank you!

AI Searching for "What is the main focus of the International Conference on Live Coding (ICLC)?"

Regenerate Clear chat

Model settings

Manage

Model

OpenAI GPT-3.5 Turbo PYLADIES

Instructions

You are an assistant for question-answering tasks.

Include citations

Context

Learn more

Number of documents sent to LLM

3

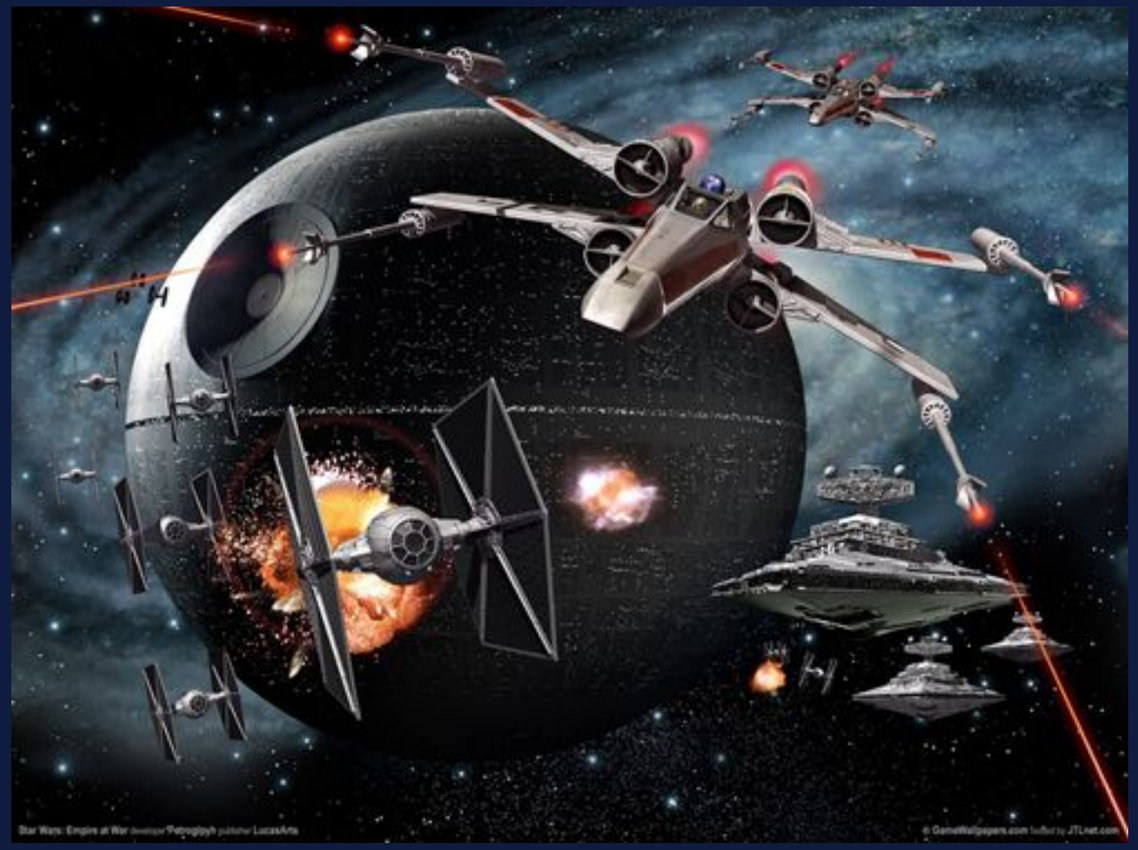
Context fields

vr_tour_data

text

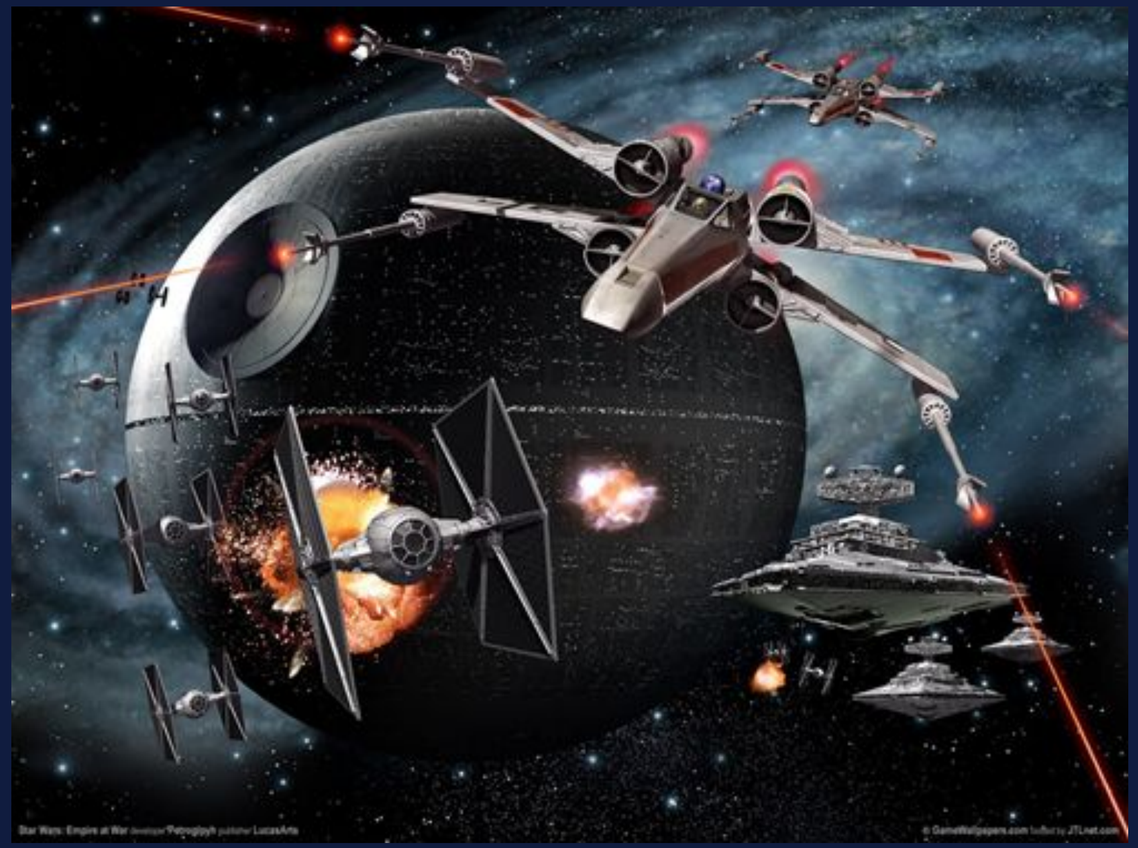
elastic

X-wing starfighter squadron

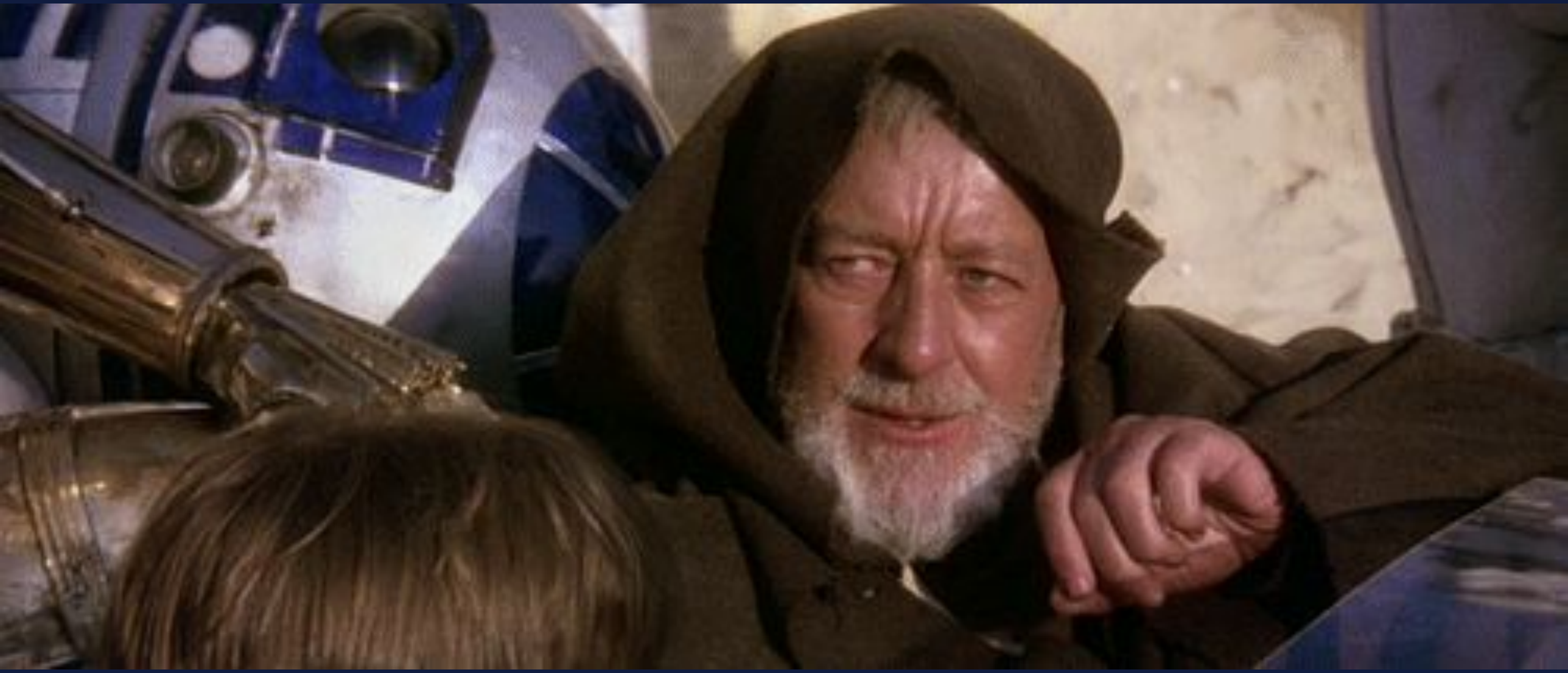


What ships and crews do I need to destroy an almost finished death star?

Or is there a secret weakness?



What's the well-known sentence of this scene in Star Wars?



elastic

These are not the droids
you are looking for.

elastic

```
GET /_analyze
{
  "char_filter": [ "html_strip" ],
  "tokenizer": "standard",
  "filter": [ "lowercase", "stop", "snowball" ],
  "text": "These are <em>not</em> the droids
           you are looking for."
}
```

elastic

```
"char_filter": "html_strip"
```

```
These are <em>not</em> the droids you are
   looking for.
```

```
These are not the droids you are
   looking for.
```

elastic

```
"tokenizer": "standard"
```

These are not the droids you are looking for.

```
These
are
not
the
droids
you
are
looking
for
```

```
"filter": "lowercase"
```

These		these
are		are
not		not
the		the
droids		droids
you		you
are		are
looking		looking
for		for

elastic

```
"filter": "stop"
```

These		
are		
not		
the		
droids		droids
you		you
are		
looking		looking
for		

elastic

```
"filter": "snowball"
```

droid**s**	droid
you	you
look**ing**	look

elastic

```
These are <em>not</em> the droids you are looking for.


{ "tokens": [{
      "token": "droid",
      "start_offset": 27, "end_offset": 33,
      "type": "<ALPHANUM>", "position": 4
    },{
      "token": "you",
      "start_offset": 34, "end_offset": 37,
      "type": "<ALPHANUM>", "position": 5
    }, {
      "token": "look",
      "start_offset": 42, "end_offset": 49,
      "type": "<ALPHANUM>", "position": 7
    }]}
```

elastic

PROS

- Fast and cheap
- Scalable
- Easy to understand

CONS

- Synonyms and homonyms
- Images, videos, audio
- User intent

Why use a vector database?

Vector databases provide the foundation for implementing semantic search for text or similarity search for images, videos, or audio.

elastic

What’s a vector?

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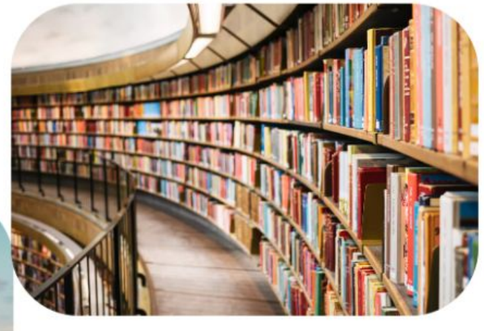
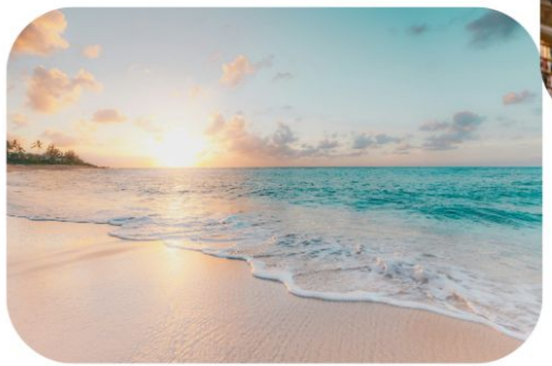
A vector database allows you to find similar data quickly.

elastic

What are embeddings?

Embeddings leverage a machine learning model to translate documents into numbers, allowing you to perform vector searches.





Use a machine learning model to add vector embeddings

Vector representation

Approximate Nearest Neighbors search

Vector representation

Result

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Ready to dive in further

https://github.com/JessicaGarson/Understanding-Vector-Databases

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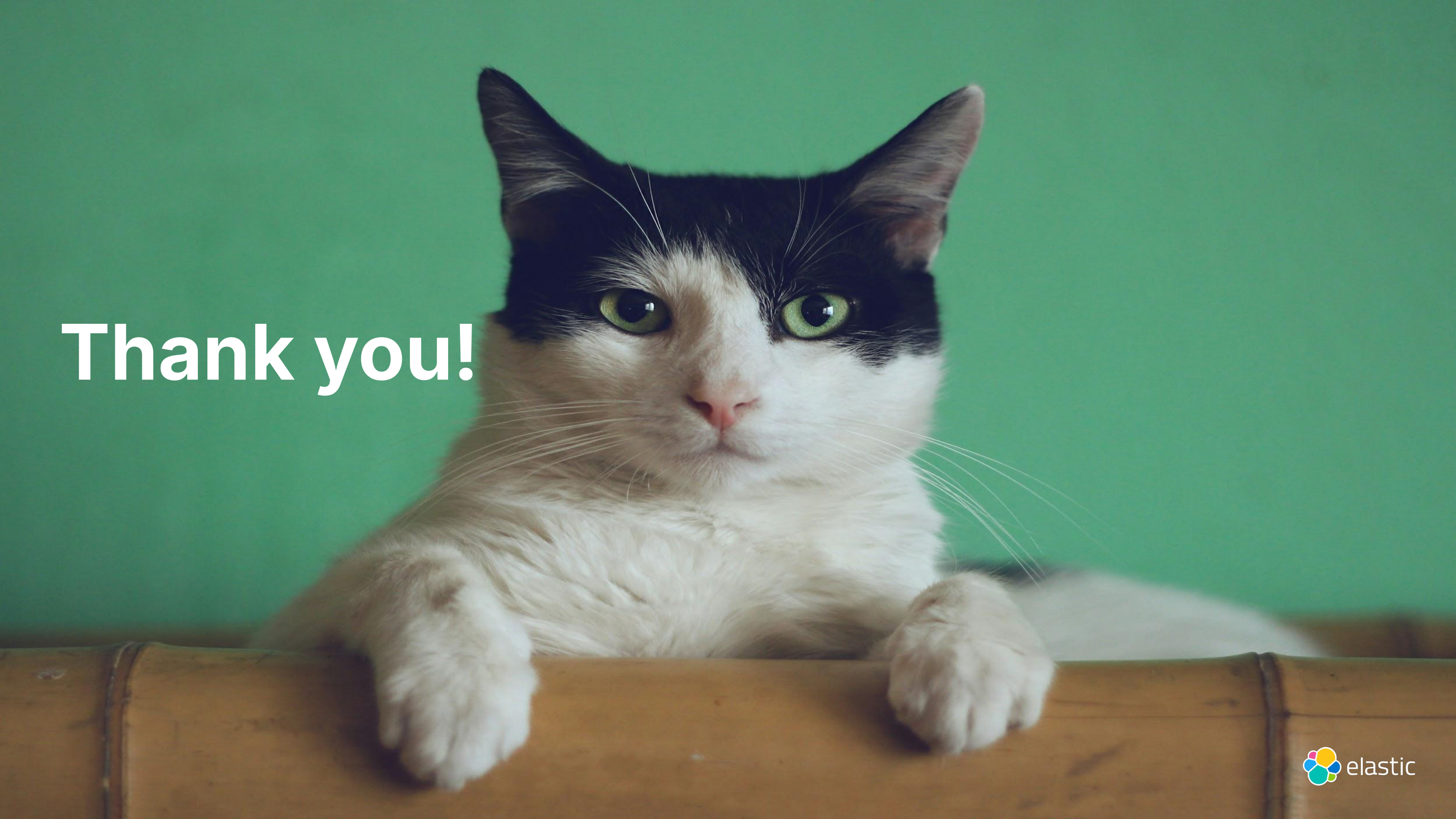
Thank you!
elastic