

SEE HOW FAST FEELS

Redis

Finding Bigfoot with JavaScript + Vector Search

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● Developer Advocate

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IANADS





Dozens of witnesses have seen . . .

BIGFOOT ROAMING THE WILDS — WITH A HUMAN CHILD!

By MIKE FOSTER / Weekly World News

VANCOUVER, Canada — Excited researchers are combing the wilds of British Columbia in response to recent sightings of Bigfoot accompanied by a blond-haired boy!

More than two dozen people claim to have seen the human youngster dressed in animal skins and loping along beside the towering man-beast. Investigators speculate that the mystery boy may be the missing survivor of a plane crash that occurred in the area 11 years ago, raised from childhood by Bigfoot.

"This is the most tantalizing development in Bigfoot research to take place in decades," said Dr. Rob Worrier, a zoologist involved in the hunt for the elusive forest creature.

"It suggests that Bigfoot is not some hairy, mindless monster as he is often depicted, but a gentle and intelligent being capable of nurturing behavior and compassion."

The boy described by eyewitnesses as lean and wiry with long, matted hair, was first spotted in late March by dentist Dr. Arthur Gosten, who was camping in the Rockies with his family. According to Gosten, he was awakened in the early morning by the frantic cries of his 12-year-old daughter. When he emerged from his tent, he saw her pointing into the woods.



ZOOLOGIST Dr. Rob Worrier, left, is leading the search for the feral child and Bigfoot first seen by dentist Dr. Arthur Gosten and his family.



1989 PHOTO OF
Marcel Dusoir.

Researchers believe boy is baby who survived '89 plane crash!

"She said that a 'wild boy' was stealing our food," Dr. Gosten recalls. "I looked where she was pointing and saw this half-naked boy hanging off one of the trees with an armful of canned goods."

Shouting after the child, Dr. Gosten gave chase and caught up with him at the edge of a clearing.

"I couldn't believe my eyes. The boy was standing next to an enormous, hairy, man-like creature at least 8 feet tall," Dr. Gosten said. "The thing took one of the boy's arms and then took off into the woods, both of them walking with the same hunched-over, ape-like stride."

Since that sighting, at least 32 people have reported seeing the wild boy and his hairy companion. Witnesses have included clergymen, forest rangers and even members of the Royal Canadian Mounted Police.

In many cases, the mismatched duo have been heard exchanging guttural sounds as if talking.

"This youngster has all the earmarks of a feral child — a child that has had no human contact and has been raised by an animal," said the Seattle-based Dr.

A HALF-NAKED boy stole an armful of food from Dr. Gosten's compatriote, then ran off with an enormous, hairy, man-like creature.

Worrier. "The fact that his gait is similar to the Bigfoot and that they can communicate is evidence that the creature is his surrogate parent."

Researchers believe that the wild-boy sightings may be connected to the 1989 crash of a private plane carrying a

party of French tourists visiting the region. The crash left the pilot and four passengers dead — including young mother Madeleine Dusoir.

Madeleine's baby Marcel was missing and the remains of the 1-year-old infant were never found.

STUDIES CLAIM:

Smoking makes you ugly!

Forget about lung cancer, heart attacks and high blood pressure. Smoking makes you ugly!

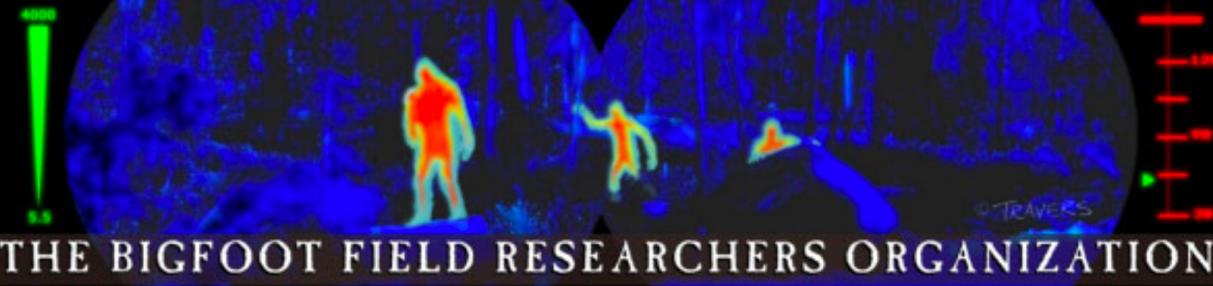
Dozens of new scientific studies worldwide are finding a definite connection between cigarette smoking and wrinkles, blearily hanging skin known as "smoker's face." The symptoms are:

- A gray, orange, purple or red cast to the complexion.
- A leathery, gaunt appearance with sagging cheeks.
- Wrinkles, especially at the corners of the eyes or on the cheeks at right angles from the tips.
- Deep lines on the cheeks and lower jaw of the smoker.

**WE DON'T ALWAYS FIND BIGFOOT
BUT WHEN WE DO**



WE DON'T



Founded in 1995 -- The only scientific research organization exploring the bigfoot/sasquatch mystery.

Contact us at ContactUs@BFRO.NET or Phone (408) 634-BFRO [408-634-2376]

The Comprehensive
Sightings Database





Bigfoot Town Hall
Meetings in USA & Canada



Tim Renner
@timothyrenner

Following

FOLLOWERS FOLLOWING LIBRARY
443 8 5

I do geo data science at HomeAway. Autistic.
Obsessed with weird data.

HomeAway
<http://timothyrenner.github.io>

1-5 of 5 Any ▾ Sort ▾

 **Haunted Places** OPEN
Haunted places in the United States pulled from the Shadowlands Haunted Places Index.
Dataset • Updated Jan 28 • Public Domain License
paranormal, geography
4 Comment

 **Bigfoot Sightings** OPEN
Full text and geocoded sighting reports from the Bigfoot Field Researchers Organization (BFRO).
Dataset • Updated Dec 2, 2017 • Public Domain License
geography, clustering, sasquatch
59 Comment

 **UFO Sightings** OPEN
Full text and geocoded UFO sighting reports from the National UFO Research Center (NUFORC).
Dataset • Updated Oct 25, 2017 • Public Domain License
ufo, paranormal, geography
13 Comment

RECENT COMMENTS

Regarding the UFO sightings - MUFON is probably a good place to start - <http://www.mufon.com/> It's possible they have a direct download available.
in Understanding Bigfoot Sightings/Understanding Bigfoot Sightings

Is the timestamp field in the CSV file incomplete? I was messing with this a while back and it seemed okay to me, but I didn't dig in too deep.
in Understanding Bigfoot Sightings/Analysis

Also, there's code for mapping sightings out in this notebook: https://github.com/timothyrenner/bfro_sightings_data/tree/master/notebooks I did a clustering analysis for my blog too:
<https://timothyrenner.github.io/datascience/2017/06/30/finding-bigfoot.html>
in Understanding Bigfoot Sightings/Understanding Bigfoot Sightings

@ninja The JSON file has state and county fields, and it joins to the geolocated reports on the report number. That might be easier than a spatial join against a county/state shapefile.
in Understanding Bigfoot Sightings/Understanding Bigfoot Sightings

I'm glad you like it - I'm happy to join the conversation!
in Bigfoot Sightings/BFRO Sightings data

Bigfoot Field Researchers Organization data

ID	8080
Date	15-Jan-1958
Title	A series of large, human-like footprints are found on a farm near Wayne National Forest
Observed	While during some yard chores, we noticed a series of tracks going into the hollow on our property. Upon examination...
Classification	Class B
County	Noble
State	Ohio
Latitude	39.63382
Longitude	-81.40079
Location Details	Closest town was Harriettsville. Closest main road is State Route 145. Right on the border of Noble and Washington Counties.

Dark Sky weather data

High/Mid/Low Temperature	34.0 / 30.0 / 26.0 °F
Humidity & Dew Point	93% / 31.2°F
Cloud Cover	100%
Moon Phase	86%
Precipitation Intensity	6.7 mm/hr
Precipitation Probability	100%
Precipitation Type	snow
Air Pressure	1011.09 millibars
Summary	Light snow (< 1 in.) starting in the afternoon.
UV Index	1
Visibility	2.62 miles
Wind Bearing/Speed	344° @ 10.12 mph

Structured data vs. unstructured data



Numbers



Text



Strings



Images



Locations



Audio

How to search structured data

Using a relational database

```
INSERT INTO BigfootSightings
( id, highTemp, state, lng, lat )
VALUES
( '42069', 80, 'Ohio', -84.49, 39.12 );
```

```
SELECT * FROM BigfootSightings
WHERE state IN ('Ohio', 'Kentucky')
AND highTemp >= 75
AND ST_Distance_Sphere(
    POINT(-84.51, 39.10),
    POINT(lng, lat)
) * 0.000621371 <= 50;
```



How to search structured data

Using Redis

```
HSET bigfoot:sighting:42069  
id '42069'  
county 'Athens'  
state 'Ohio'  
classification 'Class A'  
highTemp 80  
latlng '-84.49,39.12'
```

```
HGETALL bigfoot:sighting:42069
```



How to search structured data

Using Redis

```
FT.CREATE bigfoot:sighting:index
ON HASH
PREFIX 1 bigfoot:sighting:
SCHEMA
    county TAG
    state TAG
    classification TAG
    highTemp NUMERIC
    latlng GEO
```

```
FT.SEARCH
"@state:{ Ohio | Kentucky }
@highTemp:[ 75 +inf ]
@latlng: [ -84.51 39.10 50 mi ]"
```



How to search unstructured data

Full-text search



Fundamentally a keyword search

How to search unstructured data

Full-text search with Redis

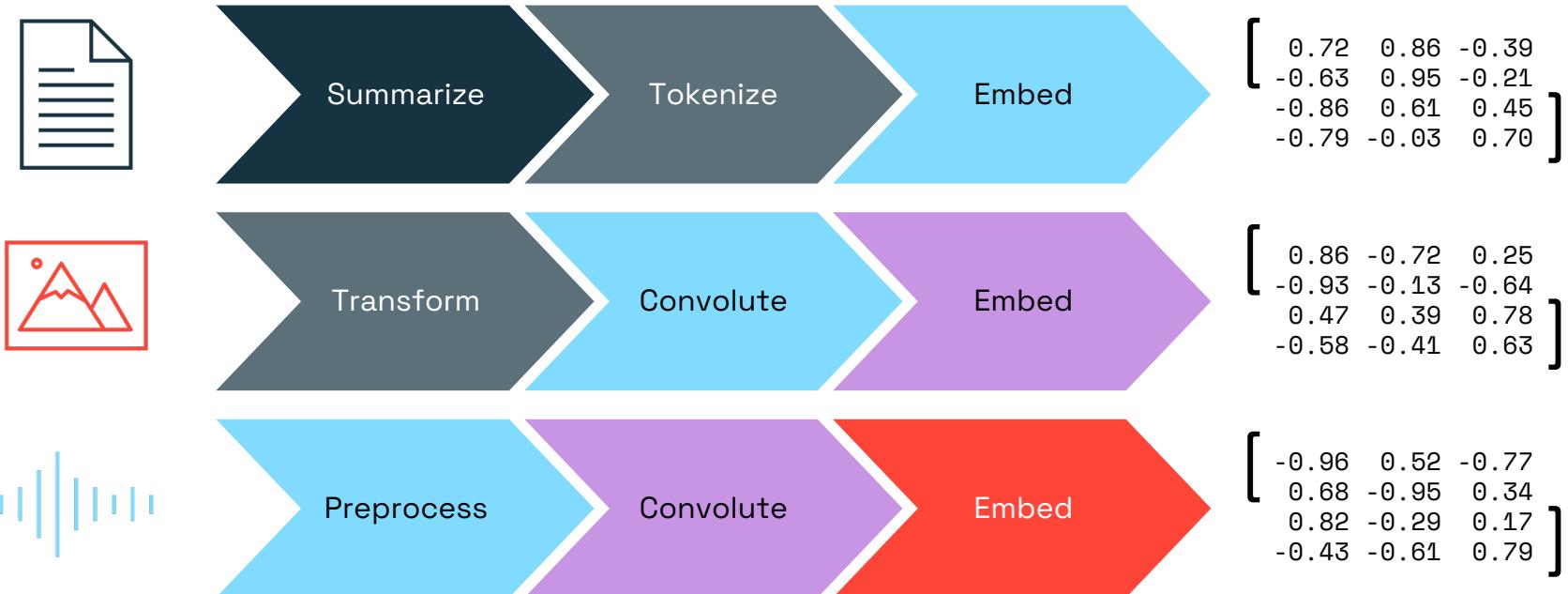
```
FT.CREATE bigfoot:sighting:index
  ON HASH
  PREFIX 1 bigfoot:sighting:
  SCHEMA
    observed TEXT
```

```
FT.SEARCH
  "observed:creek"
```



How to search unstructured data

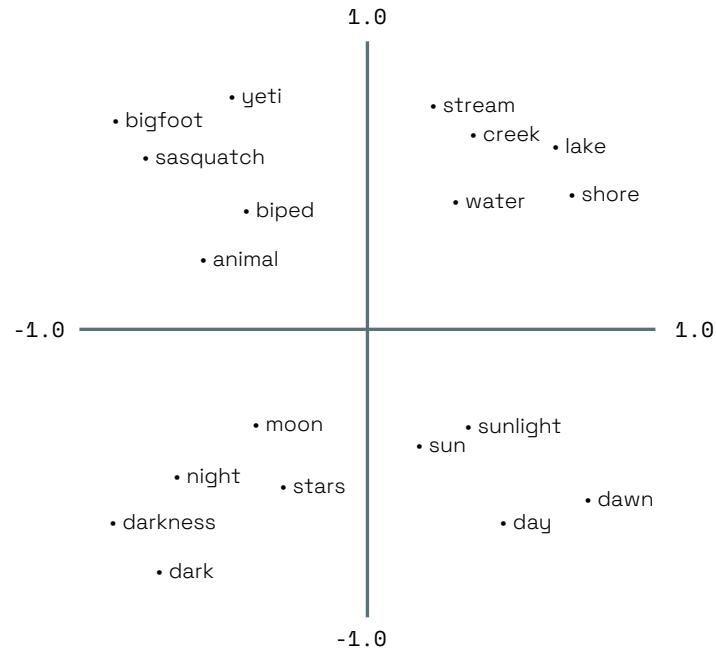
Creating embeddings



How to search unstructured data

What's an embedding?

$$\begin{bmatrix} 0.72 & 0.86 & -0.39 \\ -0.63 & 0.95 & -0.21 \\ -0.86 & 0.61 & 0.45 \\ -0.79 & -0.03 & 0.70 \end{bmatrix}$$



How to search unstructured data

Vector search

A young man saw Bigfoot
in the woods eating
raspberries.

$$\begin{bmatrix} 0.72 & 0.86 & -0.39 \\ -0.63 & 0.95 & -0.21 \\ -0.86 & 0.61 & 0.45 \\ -0.79 & -0.03 & 0.70 \end{bmatrix}$$

A witness encountered
Bigfoot at Walmart
buying size 17 flip flops.

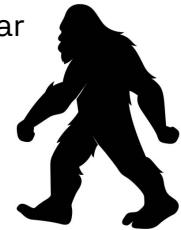
$$\begin{bmatrix} 0.86 & -0.72 & 0.25 \\ -0.93 & -0.13 & -0.64 \\ 0.47 & 0.39 & 0.78 \\ -0.58 & -0.41 & 0.63 \end{bmatrix}$$

Bigfoot knocked on a
woman's door selling
magazine subscriptions.

$$\begin{bmatrix} -0.96 & 0.52 & -0.77 \\ 0.68 & -0.95 & 0.34 \\ 0.82 & -0.29 & 0.17 \\ -0.43 & -0.61 & 0.79 \end{bmatrix}$$

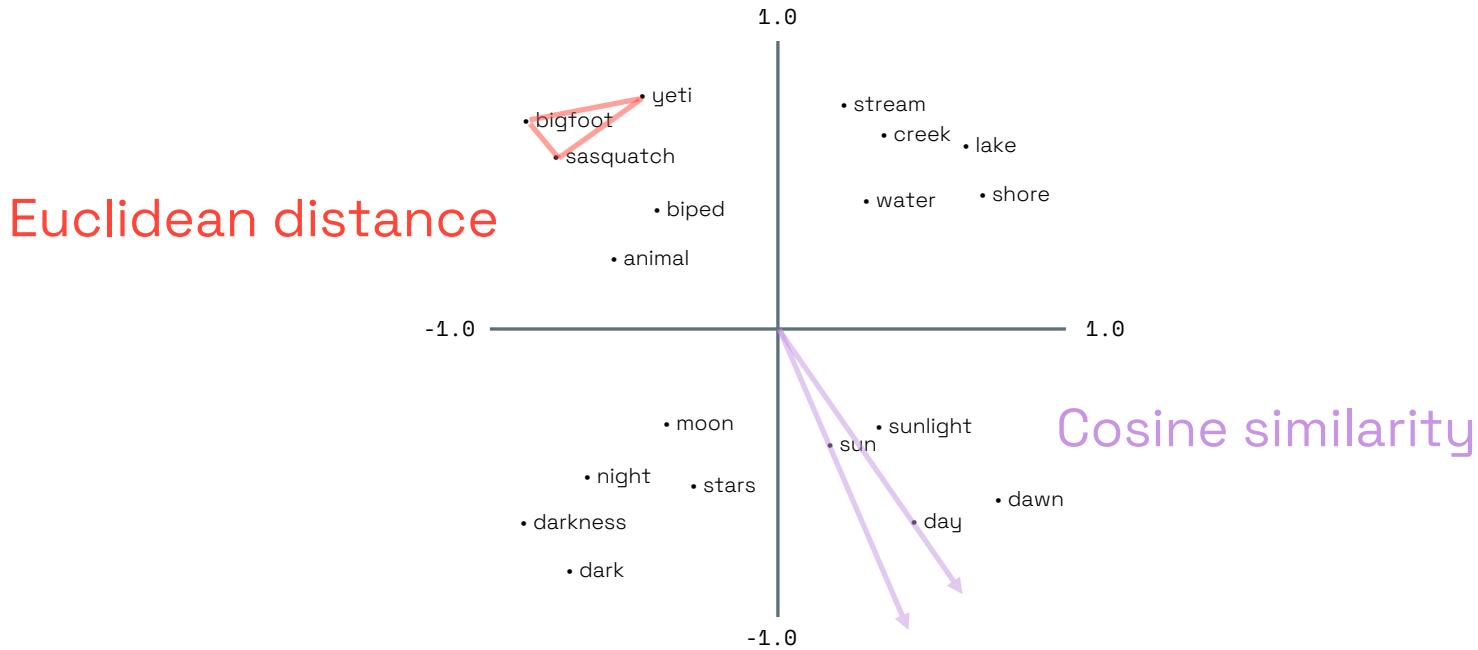
buying footwear

$$\begin{bmatrix} 0.89 & -0.76 & 0.23 \\ -0.90 & -0.03 & -0.68 \\ 0.45 & 0.39 & 0.68 \\ -0.42 & -0.40 & 0.57 \end{bmatrix}$$



How to search unstructured data

Vector similarity



How to search unstructured data

Vector search with Redis

```
FT.CREATE bigfoot:sighting:index  
ON HASH  
PREFIX 1 bigfoot:sighting:  
SCHEMA  
embedding VECTOR FLAT 6  
TYPE FLOAT32  
DIM 384  
DISTANCE_METRIC COSINE
```

FLOAT32, FLOAT64

```
FT.SEARCH  
"(*)=>[KNN 10 @embedding $BLOB]"  
PARAMS 2 BLOB \x01\x02\x03...  
SORTBY __embedding_score  
DIALECT 2
```

FLAT, HNSW

L2, IP,
COSINE

How to search structured and unstructured data

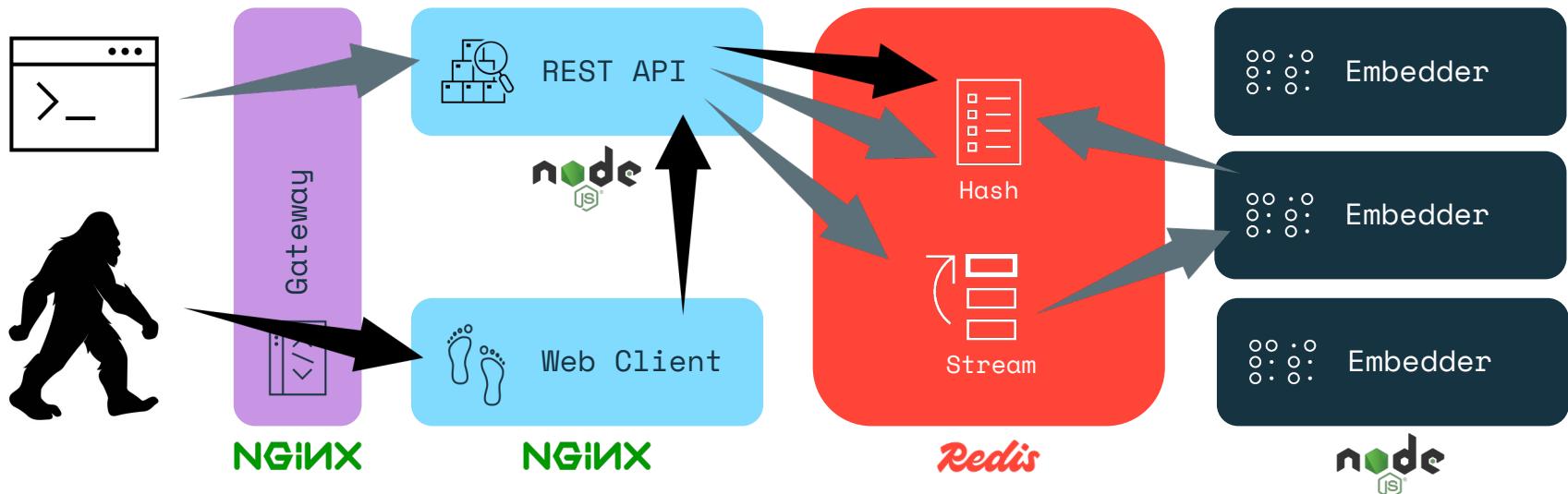
Filtered search vs. hybrid search

```
FT.CREATE bigfoot:sighting:index
ON HASH
PREFIX 1 bigfoot:sighting:
SCHEMA
    county TAG
    state TAG
    classification TAG
    highTemp NUMERIC
    latlng GEO
    observed TEXT
    embedding VECTOR FLAT 6
        TYPE FLOAT32
        DIM 384
    DISTANCE_METRIC COSINE
```

```
FT.SEARCH
    (@state:{ Ohio | Kentucky })
    @highTemp:[ 75 +inf ]
    @latlng:[ -84.51 39.10 50 mi ]
    @observed:creek) =>
        [KNN 10 @embedding $BLOB]
PARAMS 2 BLOB \x01\x02\x03...
SORTBY __embedding_score
DIALECT 2
```

I made a thing

(It finds Bigfoot)



Demo

Retrieval Augmented Generation



My photos keep
coming out blurry.

$$\begin{bmatrix} 0.89 & -0.76 & 0.23 \\ -0.90 & -0.03 & -0.68 \\ 0.45 & 0.39 & 0.68 \\ -0.42 & -0.40 & 0.57 \end{bmatrix}$$



Given the following context:

Answer the following question:

Redis

My photos keep
coming out blurry.

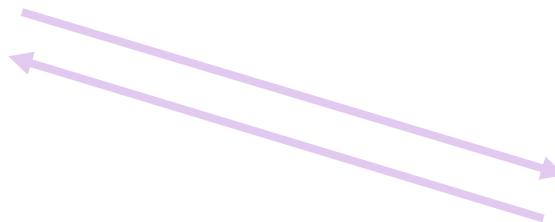


Semantic Caching



My photos keep
coming out blurry.

$$\begin{bmatrix} 0.89 & -0.76 & 0.23 \\ -0.90 & -0.03 & -0.68 \\ 0.45 & 0.39 & 0.68 \\ -0.42 & -0.40 & 0.57 \end{bmatrix}$$



Redis





Get the code

[github.com/redis-developer/
finding-bigfoot-with-semantic-search](https://github.com/redis-developer/finding-bigfoot-with-semantic-search)

A black bird, possibly a crow or raven, is perched on a dark, textured branch in the lower-left foreground. The background is a dense forest with tall, thin trees and foliage in shades of green, brown, and yellow. The lighting suggests a bright day.

Questions?



X @guyroyse

Github github.com/guyroyse

Link guy.dev

Thank you.

SEE HOW FAST FEELS