

A close-up photograph of a person's hand holding the snout of a crocodile. The crocodile's mouth is open, showing its sharp teeth. The person is wearing a light-colored shirt. The background is dark and out of focus.

BREAKING NEWS

FLORIDA MAN USES CACHE AS DATABASE

Redis

FMNN



Guy Royse
Developer Advocate

Redis



@guy.dev



@guyroyse



github.com/guyroyse



guy.dev



TECH NEWS

93% OF DEVS AGREE RAM IS VOLATILE

Redis

FMNN

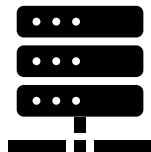


SCIENCE NEWS

USERS PERCEIVE DELAY AFTER 100 MS

Redis

FMNN



>1 ms for FMNN

~50 ms for your application

~10-50 ms Internet latency

100 ms perceivable response time

SCIENCE NEWS

USERS PERCEIVE DELAY AFTER 100 MS

Redis

FMNN

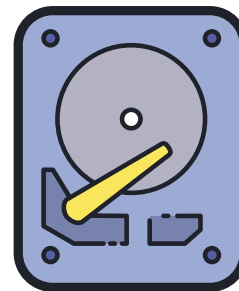
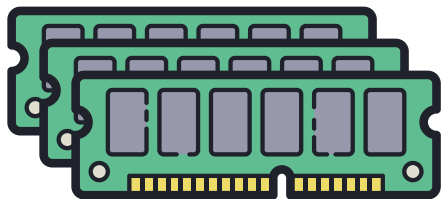


LOCAL NEWS

AREA MAN SAYS LATENCY NEW OUTAGE

Redis

FMNN



U.S. NEWS

CACHE SAVED TO DISK BY HEROIC DEV

Redis

FMNN

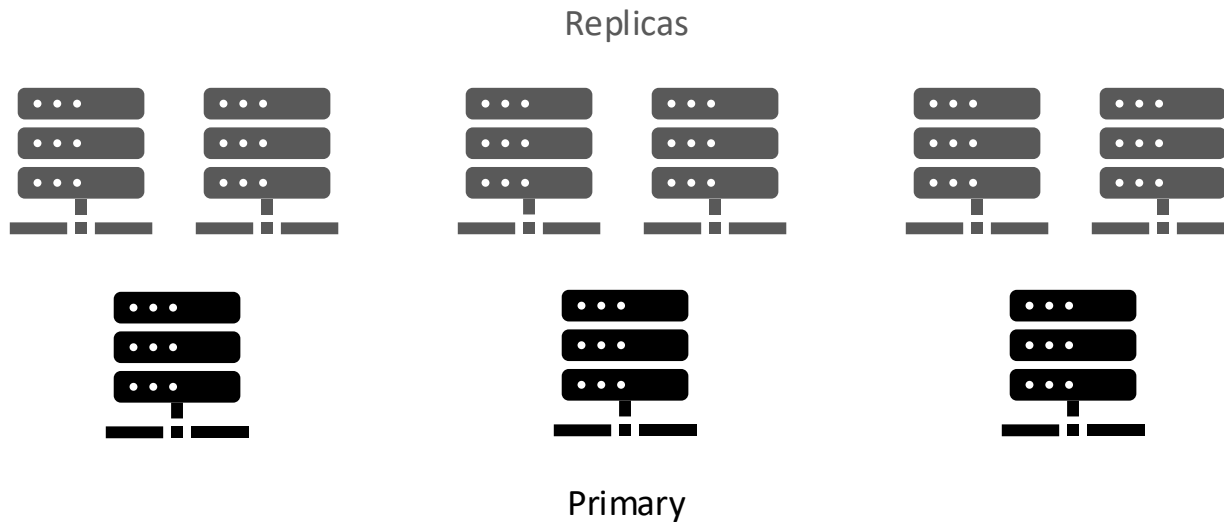
Tech	Latency	Transfer Rate	Cost
DRAM	~10-100 ns	~10-50 GB/s	High
SSD	~20-500 μ s	~600 MB/s – 7 GB/s	Moderate
HDD	~5-10 ms	~80-200 MB/s	Low

TECH NEWS

FLASH PERFORMANCE APPROACHES RAM

Redis

FMNN



U.S. NEWS

FAILOVER SAVES CACHE FROM TRAGEDY

Redis

FMNN



Memory first

Everything is in
memory so it's
wicked fast.

NoSQL

Serves up data structures that
we
know and love.

Database

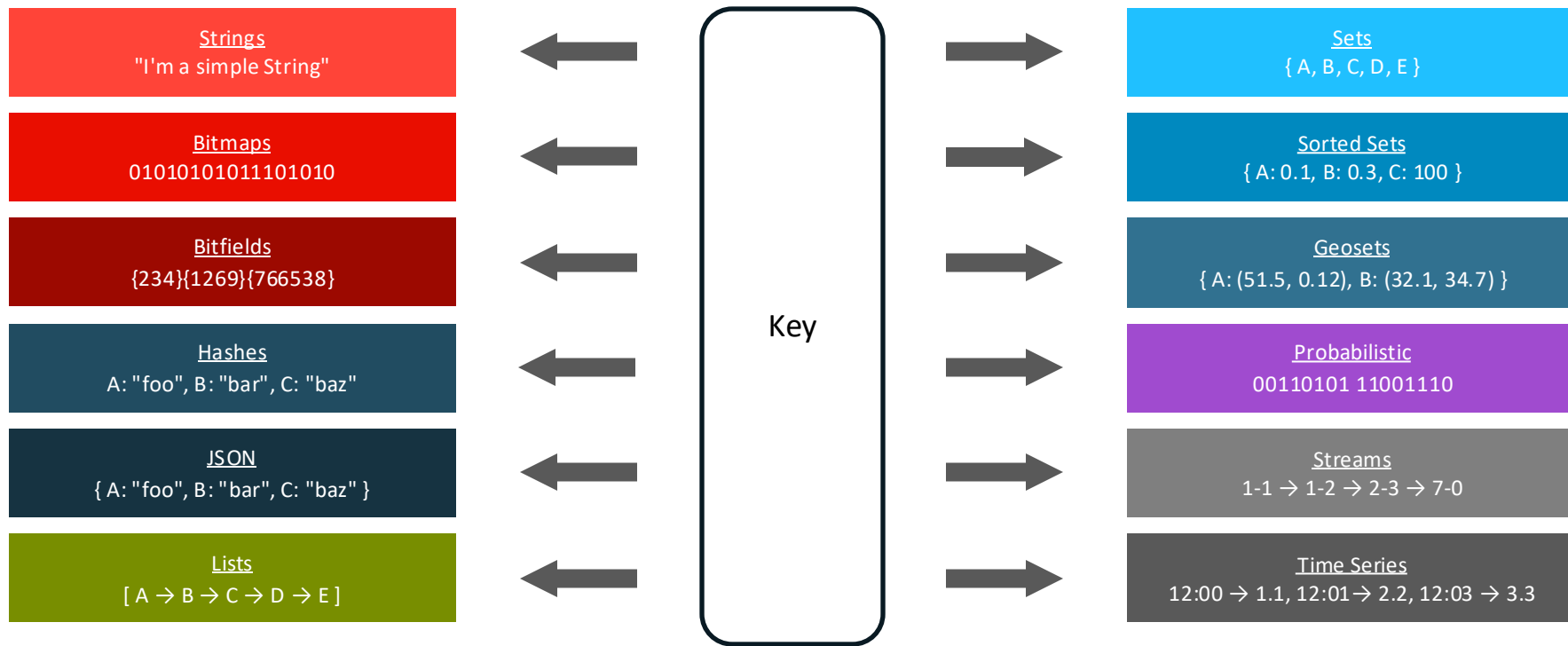
Persistable
Clusterable
Replicable

LOCAL NEWS

FLORIDA STARTUP CHOOSES REDIS AS DB

Redis

FMNN



TECH NEWS

HASH, JSON TOP DATA STRUCTS IN 2024

Redis

FMNN



HSET foo bar baz

(integer) 1

HGET foo bar

"baz"

FLUSHALL

OK

LOCAL NEWS

DEV ADVOCATE TALKS ABOUT PRODUCT

Redis

FMNN

```
import { createClient } from 'redis'

const redis = await createClient().connect()

await redis.hSet('foo', { bar: 'baz' })
const value = await redis.hGet('foo', 'bar')
await redis.flushAll()
```

WORLD NEWS

DEVS CONTINUE TO HATE JAVASCRIPT

Redis

FMNN

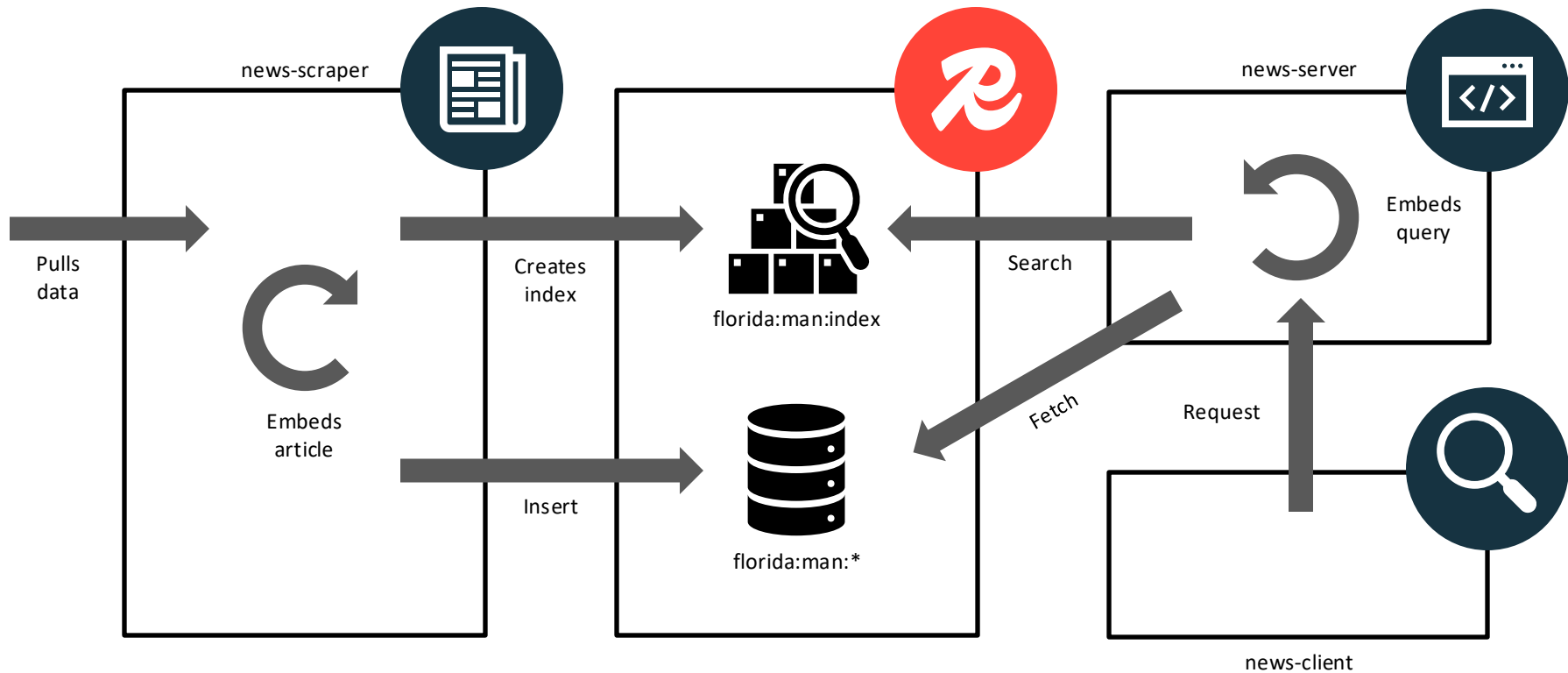
LOCAL DEVELOPER BUILDS CRUD APP

Redis

FMNN

BREAKING NEWS



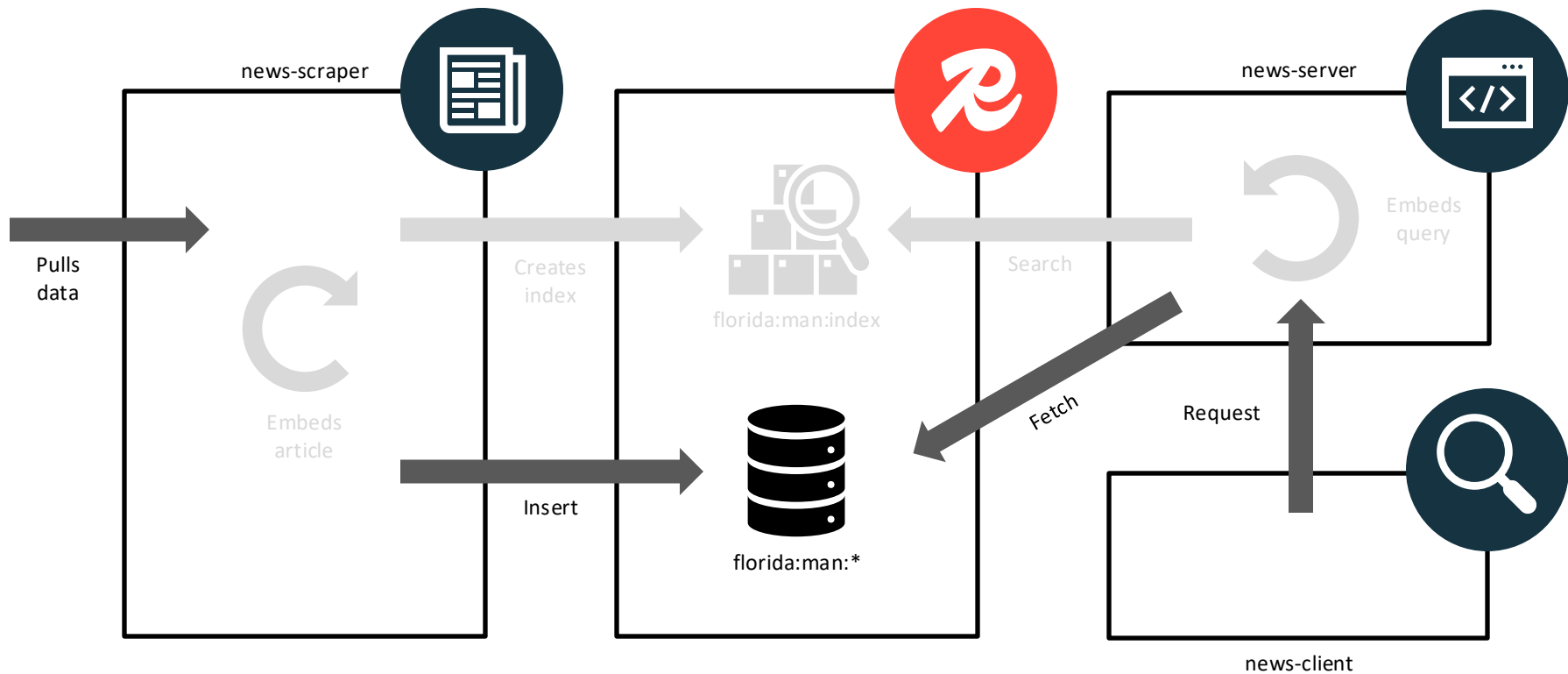


LOCAL NEWS

ARCHITECT DESIGNS SW IN POWERPOINT

Redis

FMNN



DEV CORNER

DEV IMPLEMENTS ARCHITECT'S "VISION"

Redis

FMNN

Namespace



Unique ID



florida:man:burger-king-employee-assaulted-free-fries

FLORIDA NEWS

MAN CHANGES NAME TO HANGING CHAD

Redis

FMNN

Hash

title	Florida woman who assaulted Burger King employee for not providing free fries arrested, police say
description	A Florida woman was arrested on Monday after her attempt to "have it your way" turned violent.
publicationDate	1559145901
url	https://www.foxnews.com/food-drink/burger-king-employee-assaulted-free-fries
imageUrl	https://static.foxnews.com/foxnews.com/content/uploads/2019/05/Natasha-Bagley.jpg
embedding	b\x1cO\xbd\xbb2\xf9\xbc\xc6\xde...

JSON

```
{
  "title":
    "Florida woman who assaulted Burger King employee
    for not providing free fries arrested, police say",
  "description":
    "A Florida woman was arrested on Monday after her
    attempt to \"have it your way\" turned violent.",
  "publicationDate":
    559145901,
  "url":
    "https://www.foxnews.com/food-drink/
    burger-king-employee-assaulted-free-fries",
  "imageUrl":
    "https://static.foxnews.com/foxnews.com/
    content/uploads/2019/05/Natasha-Bagley.jpg",
  "embedding": [
    0x62, 0x1C, 0x4F, 0xBD, 0xBB, 0x32, 0xF9, 0xBC,
    0xC6, 0xDE, ... ]
}
```

FLORIDA NEWS

FLA DEV BUYS HASH, BUILDS APP WITH IT

Redis

FMNN



TECH NEWS

BIG TECH SAYS 3 R'S IN, CRUD OUT

Redis

FMNN



```
const article = await redis.hGetAll(key)
```



```
HGETALL florida:man:burger-king-employee-assaulted-free-fries
```

LOCAL NEWS

DEV READS BLOG, REWRITES ENTIRE APP

Redis

FMNN



```
await redis.hSet(key, {  
  title: title ?? "",  
  description: description ?? "",  
  publicationDate: publicationDate,  
  url: url,  
  imageUrl: imageUrl,  
  embedding: embedding })
```



```
HSET florida:man:burger-king-employee-assaulted-free-fries  
title "Florida woman who assaulted Burger King..."  
description "A Florida woman was arrested..."  
url "https://www.foxnews.com/food-drink..."  
imageUrl "https://static.foxnews.com/..."  
embedding "b\x1cO\xbd\xbb2\xfa\xbc\xc6\xde..."
```

DEV CORNER

DEVELOPER USES AI TO WRITE CODE

Redis

FMNN



await redis.[unlink](#) (key)



UNLINK florida:man:burger-king-employee-assaulted-free-fries

LOCAL NEWS

DEV ALIASES git push --force TO git rekt

Redis

FMNN

DEV USES ACID TO BUILD PHARMA APP

Redis

FMNN

BREAKING NEWS



Atomic

Every transaction is all-or-nothing, meaning it either completes fully or doesn't happen at all.

TECH NEWS

DOES ACID ENHANCE DEV EXPERIENCE?

Redis

FMNN

Atomic

Every transaction is all-or-nothing, meaning it either completes fully or doesn't happen at all.

Consistent

A transaction brings the database from one valid state to another, maintaining all defined rules and constraints.

TECH NEWS

DOES ACID ENHANCE DEV EXPERIENCE?

Redis

FMNN

Atomic	Every transaction is all-or-nothing, meaning it either completes fully or doesn't happen at all.
Consistent	A transaction brings the database from one valid state to another, maintaining all defined rules and constraints.
Isolated	Transactions occur independently without interference, as if they were executed one after another.

TECH NEWS

DOES ACID ENHANCE DEV EXPERIENCE?

Redis

FMNN

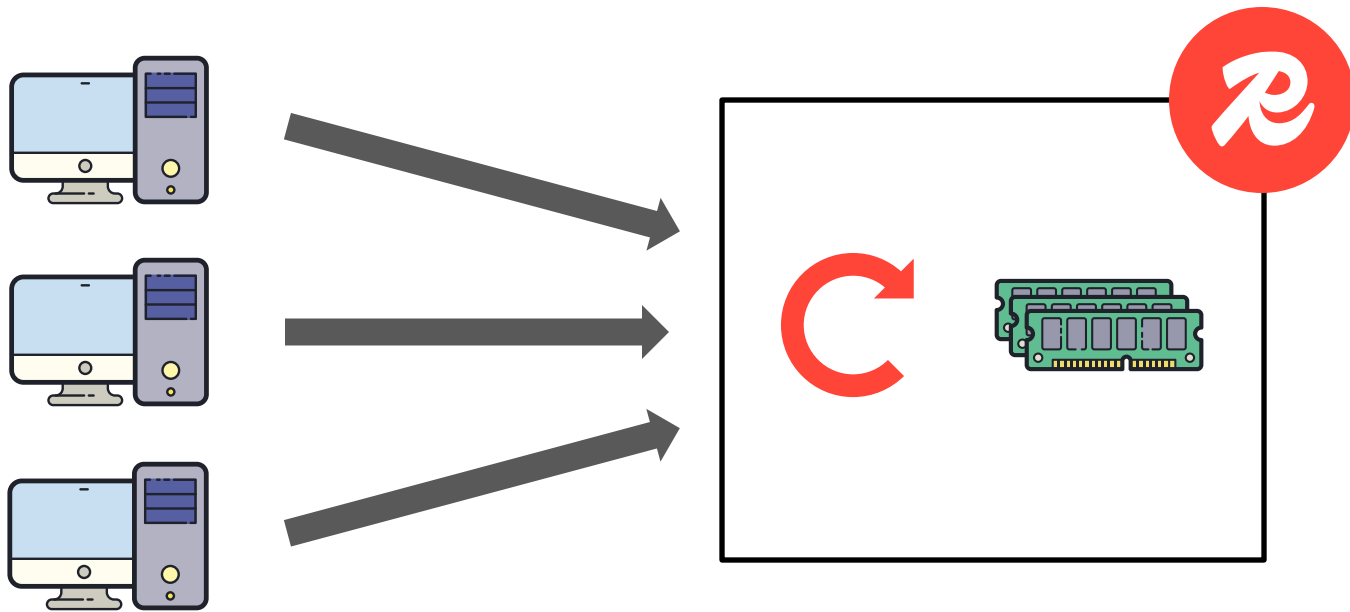
Atomic	Every transaction is all-or-nothing, meaning it either completes fully or doesn't happen at all.
Consistent	A transaction brings the database from one valid state to another, maintaining all defined rules and constraints.
Isolated	Transactions occur independently without interference, as if they were executed one after another.
Durable	Once a transaction is committed, its results are permanently saved, even in the event of a system failure.

TECH NEWS

DOES ACID ENHANCE DEV EXPERIENCE?

Redis

FMNN

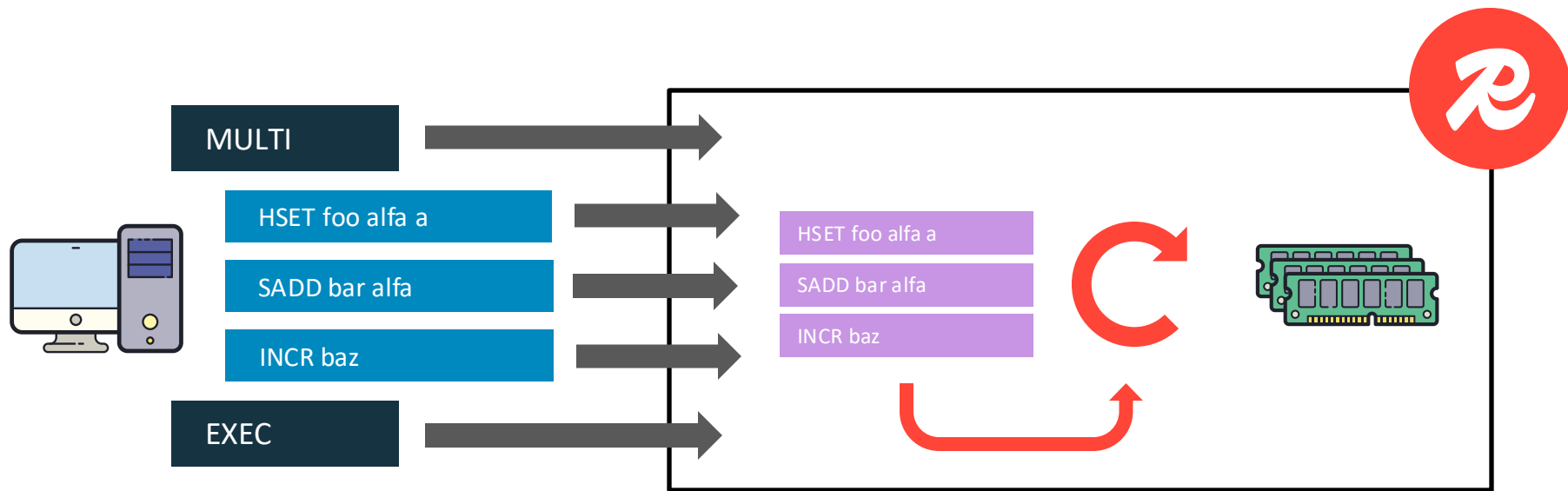


LOCAL NEWS

NEW DEVELOPER SAYS THREADS EASY

Redis

FMNN

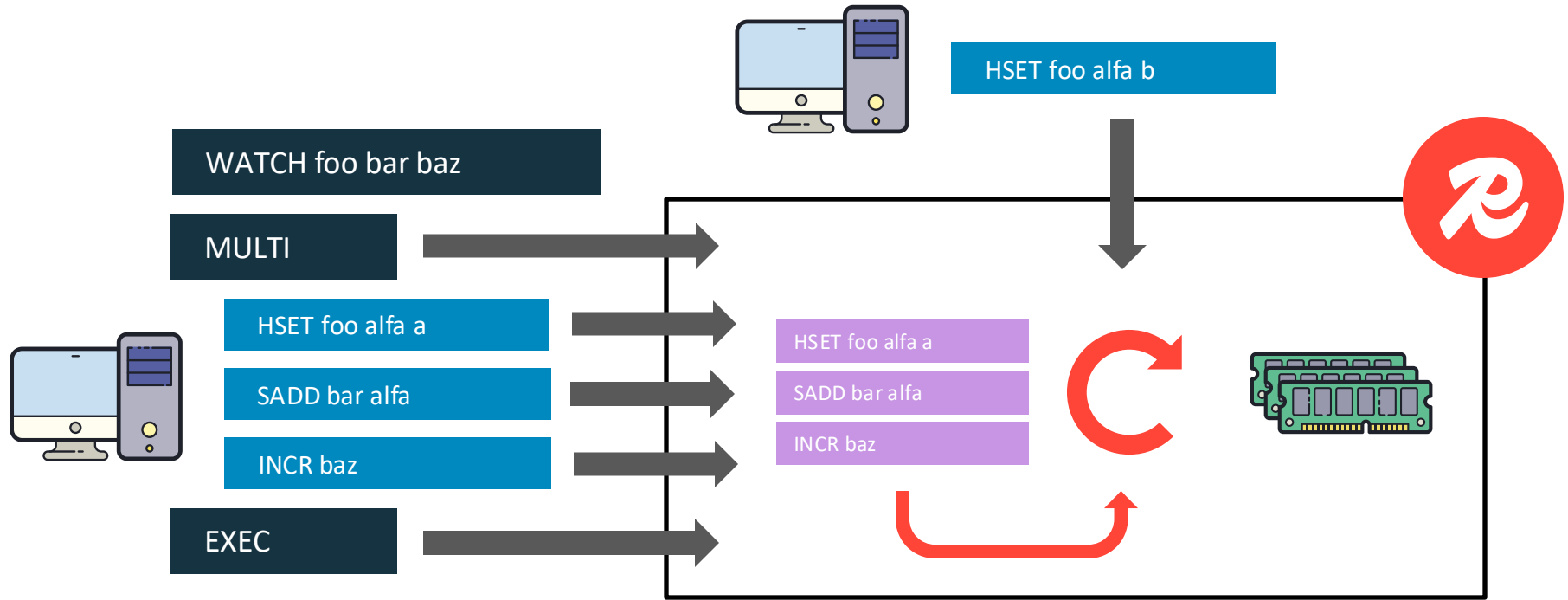


LOCAL NEWS

ARCHITECT LOVES DIST TRANSACTIONS

Redis

FMNN

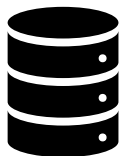


LOCAL NEWS

FLA DEVS OPTIMISTIC ABOUT NEW LOCKS

Redis

FMNN



Redis database (RDB)

redis.conf

save 3600 1
save 300 100
save 60 10000

Append-only file (AOF)

redis.conf

appendonly yes
appendfsync everysec
auto-aof-rewrite-percentage 100
auto-aof-rewrite-min-size 64mb

LOCAL NEWS

REDIS CONFIG EASY SAYS SYS ADMIN

Redis

FMNN

Atomic

Redis ensures **atomicity** through the MULTI and EXEC commands, where all commands in a transaction are executed as a single unit.

SCIENCE NEWS

RARE KAIJU SIGHTING OFF GULF COAST

Redis

FMNN

Atomic

Redis ensures **atomicity** through the MULTI and EXEC commands, where all commands in a transaction are executed as a single unit.

Consistent

Redis ensures **consistency** by using the WATCH command to monitor keys and only allowing transactions to proceed if they don't change.

LOCAL NEWS

FLA MAN HAS SAME MEAL DAILY AT IHOP

Redis

FMNN

Atomic	Redis ensures atomicity through the MULTI and EXEC commands, where all commands in a transaction are executed as a single unit.
Consistent	Redis ensures consistency by using the WATCH command to monitor keys and only allowing transactions to proceed if they don't change.
Isolated	The single-threaded nature of Redis ensures isolation , as commands from different clients are executed sequentially.

BREAKING NEWS

SOFTWARE DEV CODES ALONE

Redis

FMNN

Atomic	Redis ensures atomicity through the MULTI and EXEC commands, where all commands in a transaction are executed as a single unit.
Consistent	Redis ensures consistency by using the WATCH command to monitor keys and only allowing transactions to proceed if they don't change.
Isolated	The single-threaded nature of Redis ensures isolation , as commands from different clients are executed sequentially.
Durable	Configurable persistence options allow Redis to ensure durability by saving committed data to disk, even after a crash.

TECH NEWS

NO NEED TO DROP ACID WITH REDIS

Redis

FMNN

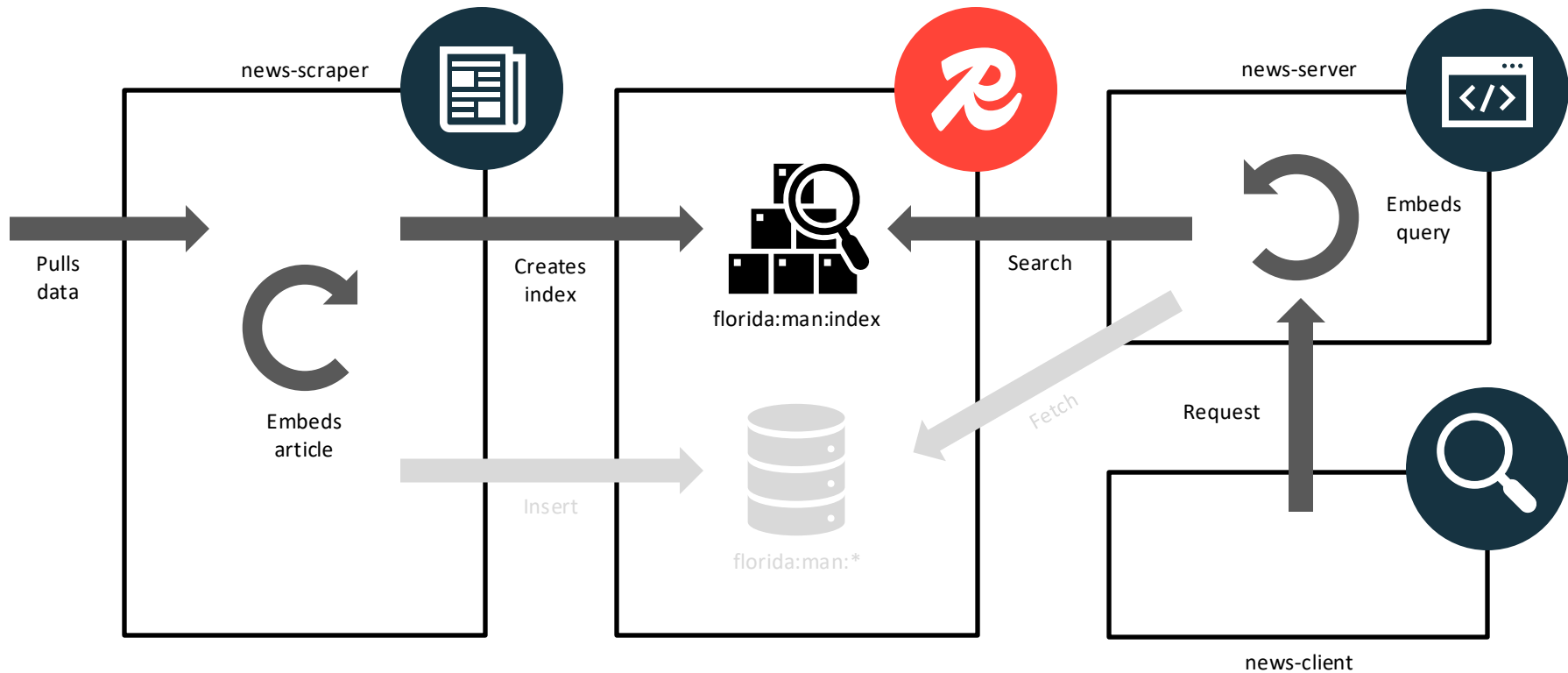
POLICE STILL SEARCHING FOR LOST DATA

Redis

FMNN

BREAKING NEWS





LOCAL NEWS

ARCHITECT DESIGNS SW IN POWERPOINT

Redis

FMNN

florida-woman-tased-70-times

florida-man-breaks-in-eats-
shrimp

florida-teen-sleeps-through-
arrest

news:articles:by:state:Florida

ohio-woman-likes-michigan-too-
much

ohio-guy-gives-talk-at-conference

ohio-teen-wants-to-move-to-
florida-next-year

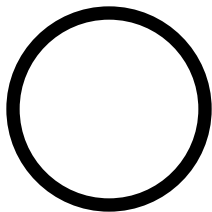
news:articles:by:state:Ohio

florida-woman-tased-70-times

ohio-guy-gives-talk-at-conference

texas-man-barbeques-alligator-
steaks

news:articles:by:year:2024



SMEMBERS

news:articles:by:state:Florida

DEV CORNER

MAINTAINING INDEX "A PAIN" SAYS DEVS

Redis

FMNN

florida-woman-tased-70-times

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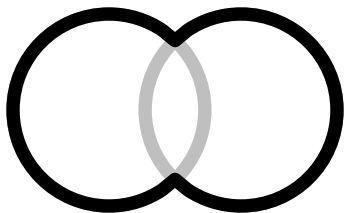
news:articles:by:state:Ohio

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texas-man-barbeques-alligator-
steaks

news:articles:by:year:2024



SUNION

news:articles:by:state:Florida

news:articles:by:state:Ohio

DEV CORNER

MAINTAINING INDEX "A PAIN" SAYS DEVS

Redis

FMNN

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florida-next-year

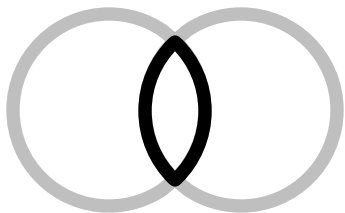
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florida-woman-tased-70-times

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texas-man-barbeques-alligator-
steaks

news:articles:by:year:2024



SINTER

news:articles:by:state:Florida

news:articles:by:year:2024

DEV CORNER

MAINTAINING INDEX "A PAIN" SAYS DEVS

Redis

FMNN

florida-woman-tased-70-times

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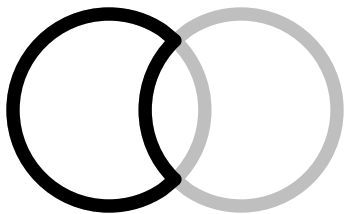
news:articles:by:state:Ohio

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steaks

news:articles:by:year:2024



SDIFF

news:articles:by:year:2024

news:articles:by:state:Ohio

DEV CORNER

MAINTAINING INDEX "A PAIN" SAYS DEVS

Redis

FMNN



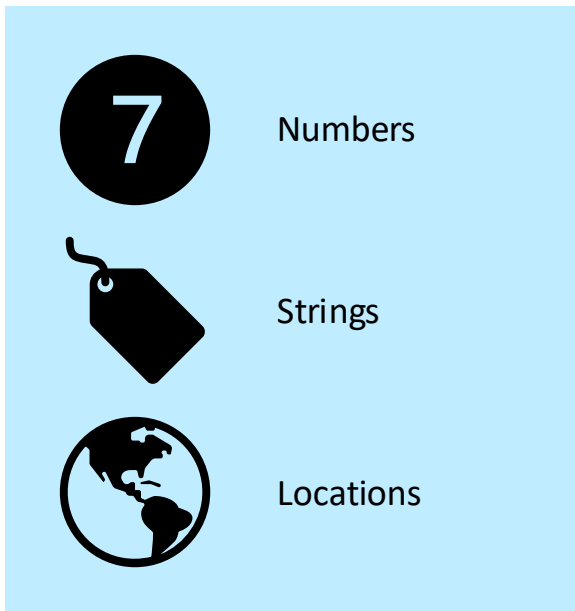
LOCAL NEWS

CUSTOM INDEX FAILS TO MEET NEEDS

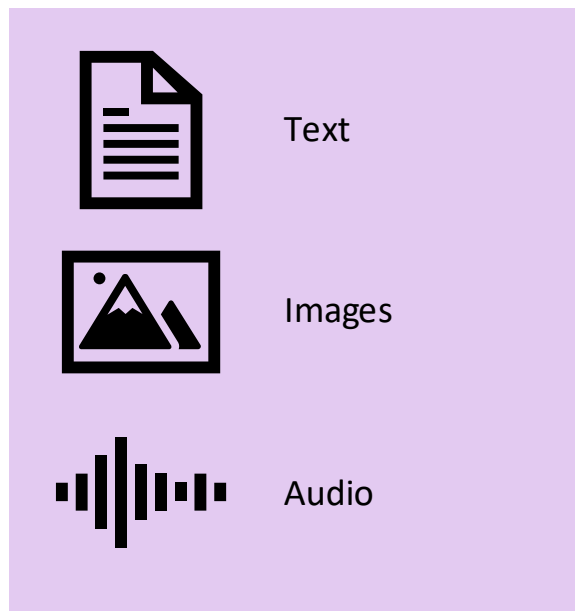
Redis

FMNN

Structured data



Unstructured data

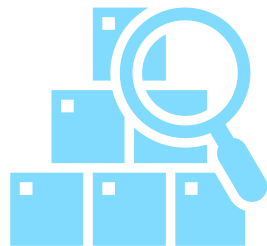


DEV CORNER

DEVS AGREE: STRUCTURED DATA EASY

Redis

FMNN



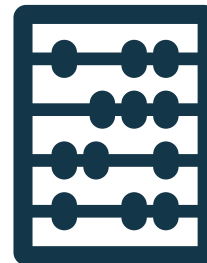
Indexing



Full-text search



Vector search



Aggregation

DEV CORNER

REDIS QUERY ENGINE TECH PANACEA

Redis

FMNN



DEV CORNER

FULL-TEXT IS FANCY KEYWORD SEARCH

Redis

FMNN



```
await redis.ft.create(indexName, {  
  title: { type: SchemaFieldTypes.TEXT },  
  description: { type: SchemaFieldTypes.TEXT },  
  publicationDate: { type: SchemaFieldTypes.NUMERIC }  
}, { ON: 'HASH', PREFIX: `${prefix}:` }
```



```
FT.CREATE florida:man:index ON HASH PREFIX 1 florida:man  
SCHEMA  
  title TEXT  
  description TEXT  
  publicationDate NUMERIC
```

LOCAL NEWS

DEV SHOWS CODE, AUDIENCE FORGETS

Redis

FMNN



```
const query = "@title:burger @publicationDate:[1577836800 +inf]"  
const articles = await redis.ft.search(indexName, query)
```



```
FT.SEARCH florida:man:index  
"@title:burger @publicationDate:[1577836800 +inf]"
```

SCIENCE NEWS

SLIDES WITH CODE EASY, LESS IMPACT

Redis

FMNN



TECH NEWS

AI APP IS GOLDEN OPPORTUNITY FOR DEV

Redis

FMNN



Embed

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


Embed

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


Embed

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

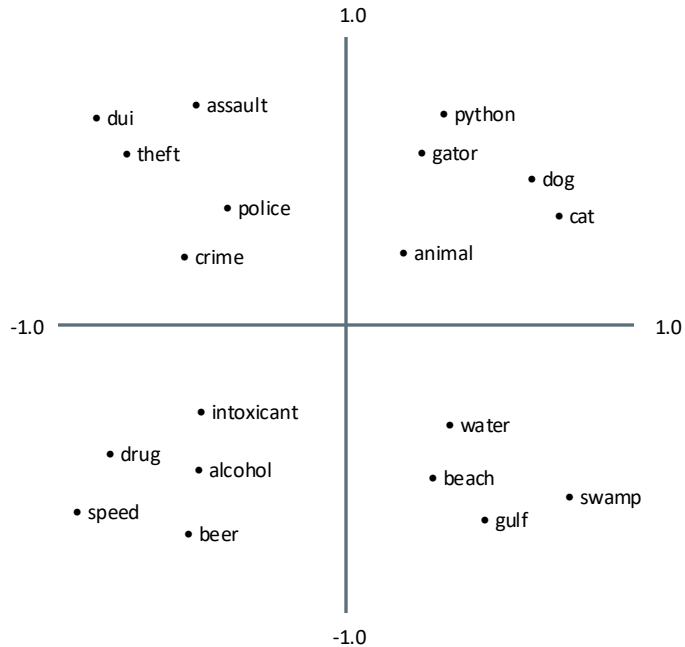
BREAKING NEWS

AI EMBEDDINGS CREATED WITH MAGIC

Redis

FMNN

[0.72 0.86 -0.39
-0.63 0.95 -0.21
-0.86 0.61 0.45
-0.79 -0.03 0.70]



SCIENCE NEWS

IT'S, LIKE, JUST POINTS IN SPACE, MAN

Redis

FMNN

Florida police charge 2 women for throwing glitter on man during argument

[0.72 0.86 -0.39
-0.63 0.95 -0.21
-0.86 0.61 0.45
-0.79 -0.03 0.70]

Florida woman who assaulted Burger King employee for not providing free fries arrested, police say

[0.86 -0.72 0.25
-0.93 -0.13 -0.64
0.47 0.39 0.78
-0.58 -0.41 0.63]

Florida woman fighting to keep motorcycle-riding pet alligator

[-0.96 0.52 -0.77
0.68 -0.95 0.34
0.82 -0.29 0.17
-0.43 -0.61 0.79]



dispute at a fast food restaurant

[0.89 -0.76 0.23
-0.90 -0.03 -0.68
0.45 0.39 0.68
-0.42 -0.40 0.57]

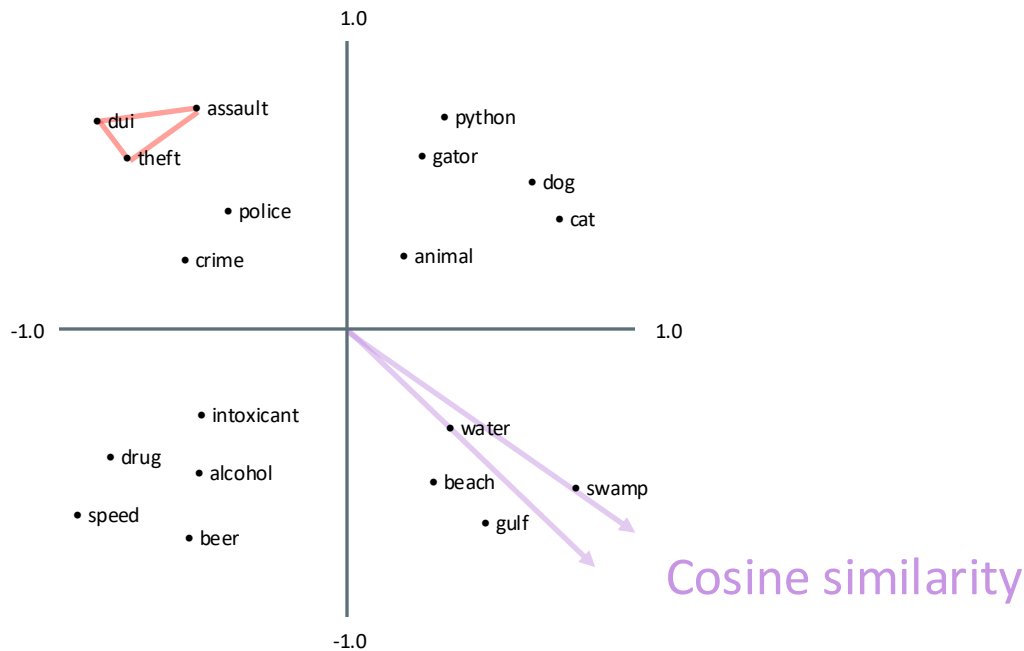
SCIENCE NEWS

IT'S, LIKE, EVERYTHING IS NUMBERS MAN

Redis

FMNN

Euclidean distance



TECH NEWS

VECTOR SEARCH EASIER THAN THOUGHT

Redis

FMNN



DEV CORNER

DEV ADV TIRED OF SLIDES, SHOWS CODE

Redis

FMNN

DEMO CRASHES, LAPTOP EXPLODES

Redis

FMNN

BREAKING NEWS





BREAKING NEWS

SPEAKER, ATTENDEES VIOLATE COC



redis.io
university.redis.io



[github.com/guyroyse/
florida-man-uses-cache-as-database](https://github.com/guyroyse/florida-man-uses-cache-as-database)



Discord

discord.gg/redis

TECH NEWS

DEVS REJOICE AS TALK NEARS END

Redis

FMNN



Guy Royse
Developer Advocate

Redis



@guy.dev



@guyroyse



github.com/guyroyse



guy.dev

THANKS

A close-up photograph of a person's hand holding the snout of a crocodile. The crocodile's mouth is open, showing its sharp teeth. The person is wearing a light-colored shirt. The background is dark and out of focus.

BREAKING NEWS

FLORIDA MAN USES CACHE AS DATABASE

Redis

FMNN