



# RAG

# 3 letters for faster & smarter decisions



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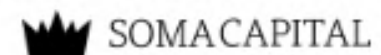
AI-native financial analysis and research platform.

Powering finance professionals at



### Our investors

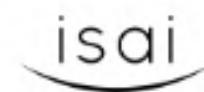
khosla ventures



**Y** Combinator

FRANKLIN TEMPLETON  
INVESTMENTS

**U** UpHonest Capital



GOODWATER



# ChatGPT is dumb, right?

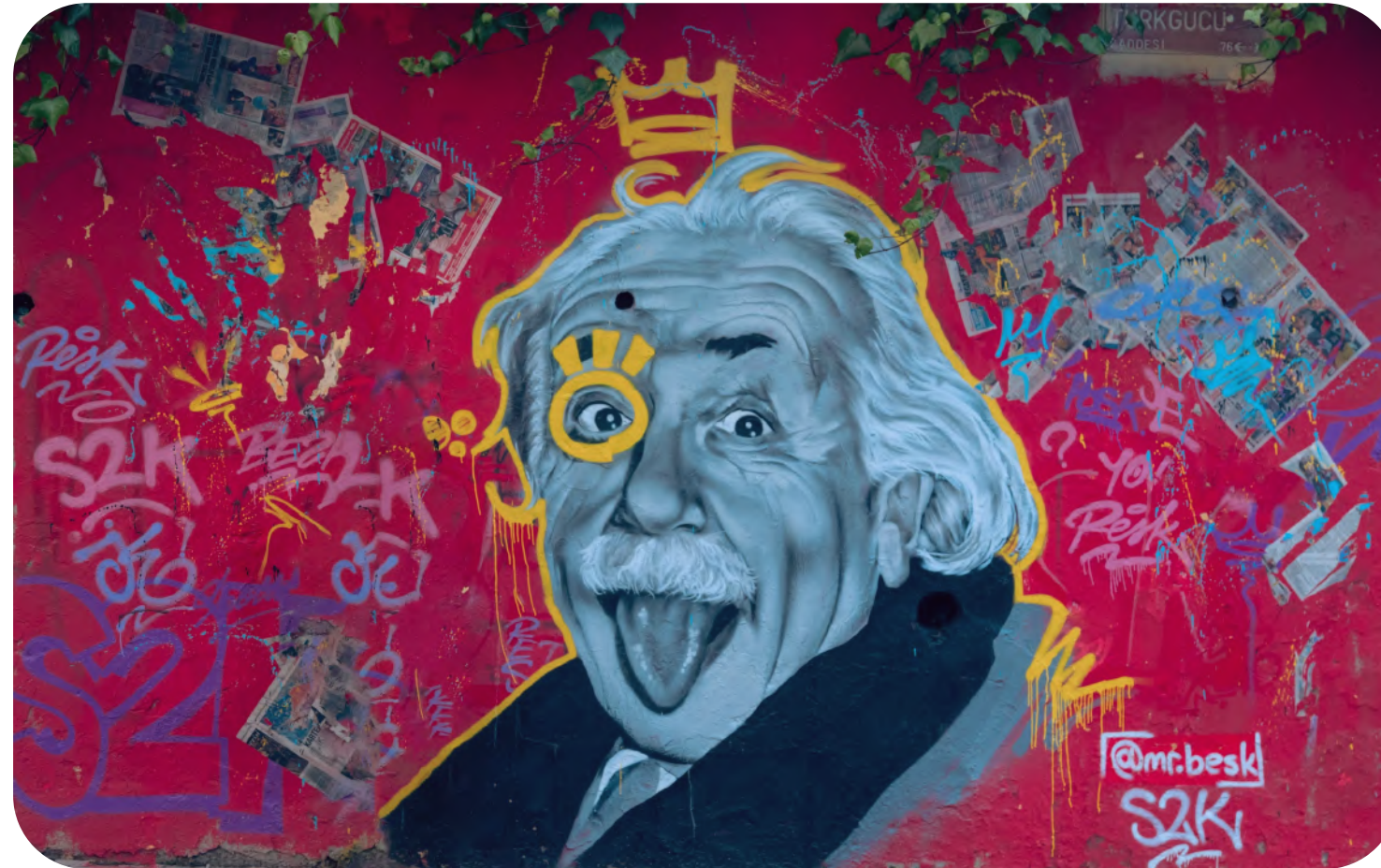


Hallucinations?

Paraphrasing?

Out-of-context references?






# Who is smart?



**Einstein IQ = 160**

# LLMs are!

## GENIUS VS AI (FEB/2024)

	 Average human	 Terence Tao	 William James Sidis	 GPT-4	 Gemini 1.0 and 1.5
<b>IQ percentile</b>	50 <sup>th</sup>	>99.9 <sup>th</sup>	>99.9 <sup>th</sup>	>99.9 <sup>th</sup>	>99.9 <sup>th</sup>
<b>Languages</b>	2	2	25+	90+	200+
<b>Books read</b>	700	700+	700+	4,000,000+	10,000,000+
<b>Working memory</b>	7 words	9+ words	9+ words	128,000 words	7,000,000 words
<b>Long-term memory</b>	74TB	74TB	74TB	40TB	80TB
<b>SAT score</b>	1050 (50 <sup>th</sup> )	~1460 (97 <sup>th</sup> )	-	1410 (94 <sup>th</sup> )	

Sources: Working memory extrapolated from Miller, 1956, and Cowan, 2000, <https://doi.org/10.1017/S0140525X01003922>. Long-term memory extrapolated from Stanford, 2010, <https://pubmed.ncbi.nlm.nih.gov/21092855/>. Alan D. Thompson. Sep/2023, Feb/2024. <https://life architect.ai/iq-testing-ai>

[LifeArchitect.ai/iq-testing-AI](https://life architect.ai/iq-testing-ai)

**GPT4 IQ = 155**

**GTP5 IQ = 180?**

**Als are already smart**





## The problem is context!

LLMs have a huge knowledge but they need help to retrieve the right context.

# A (very) simplified GenAI Chat

**Question**

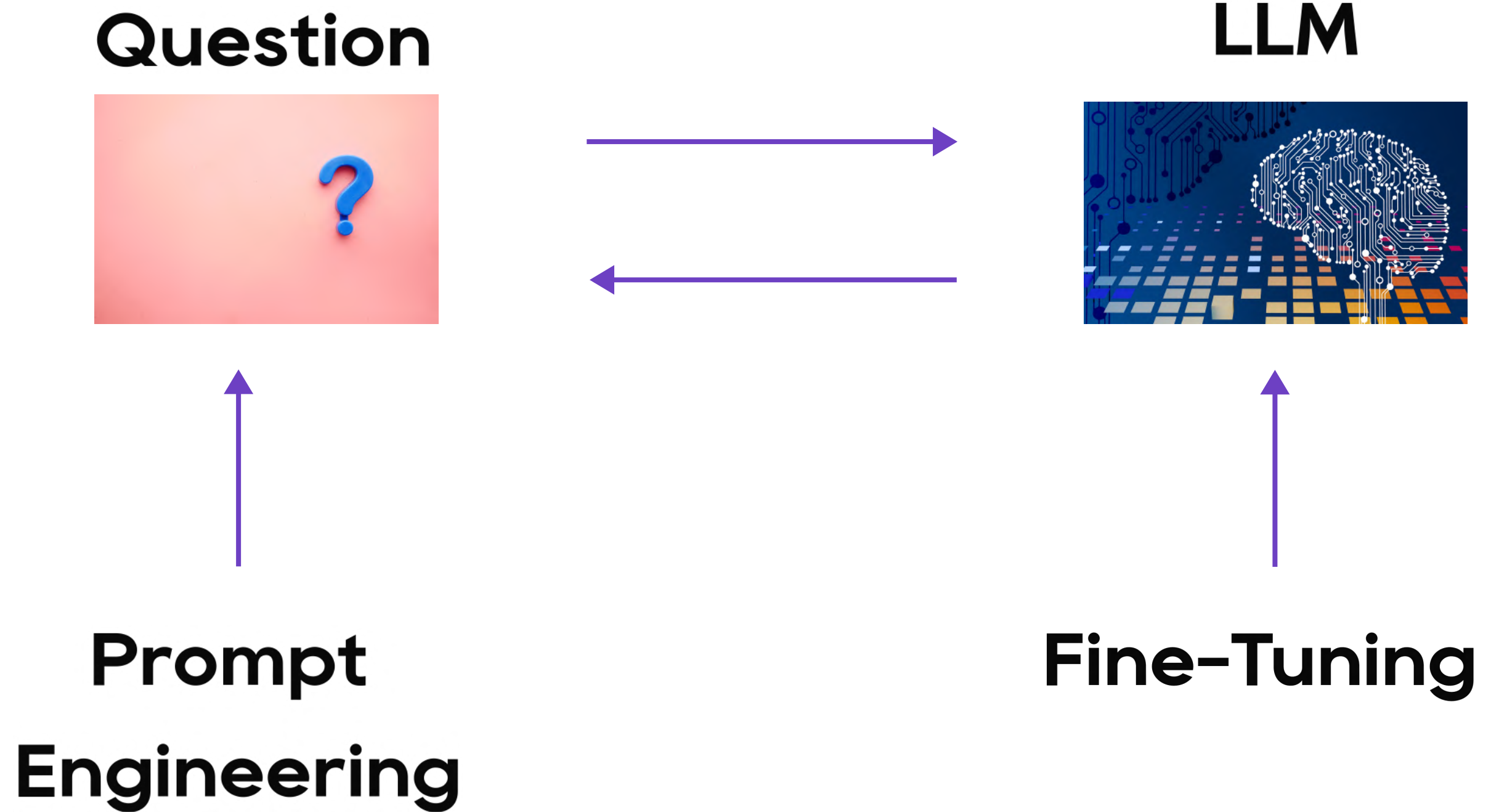


**LLM**





# Improving GenAI

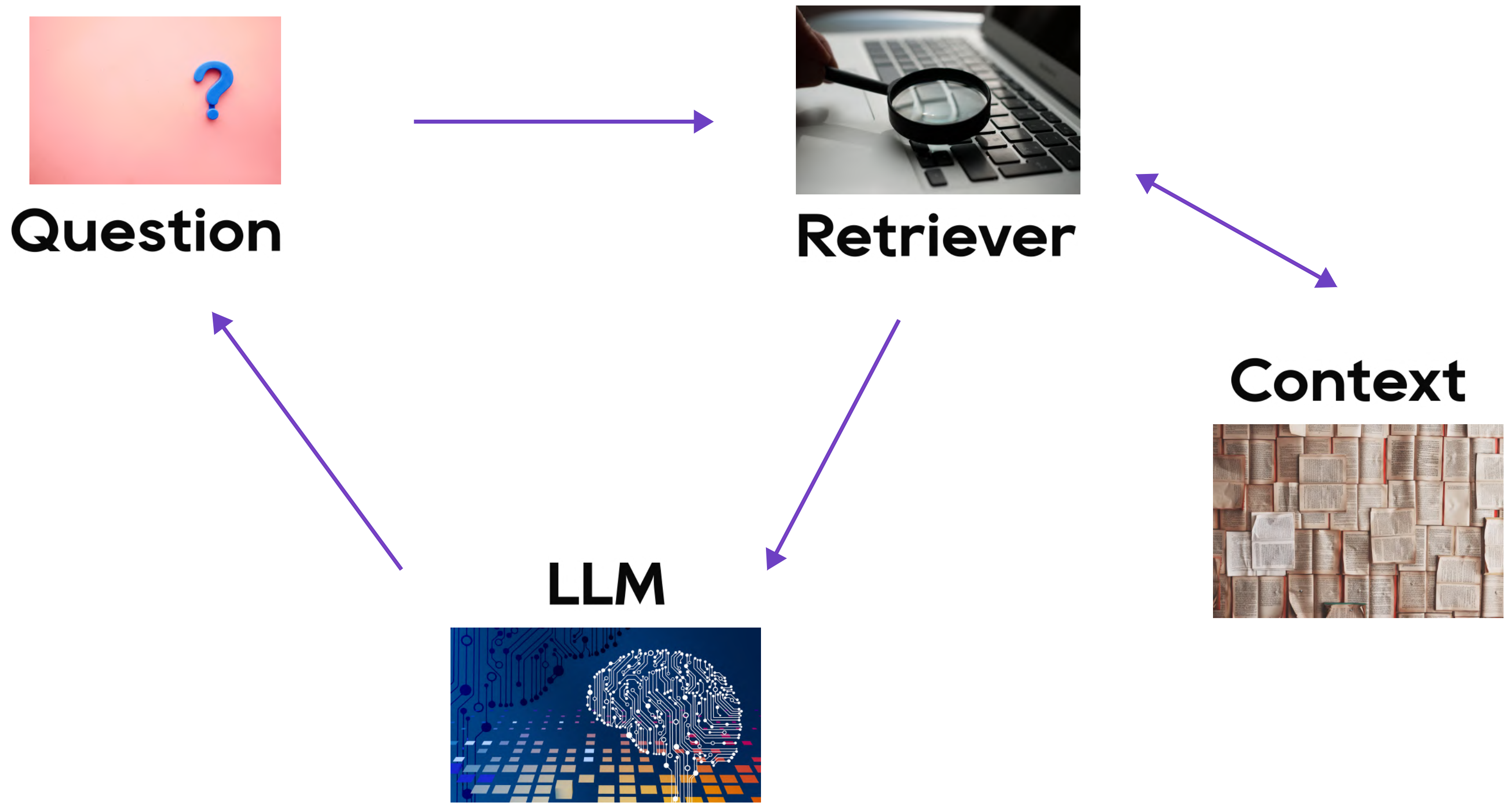




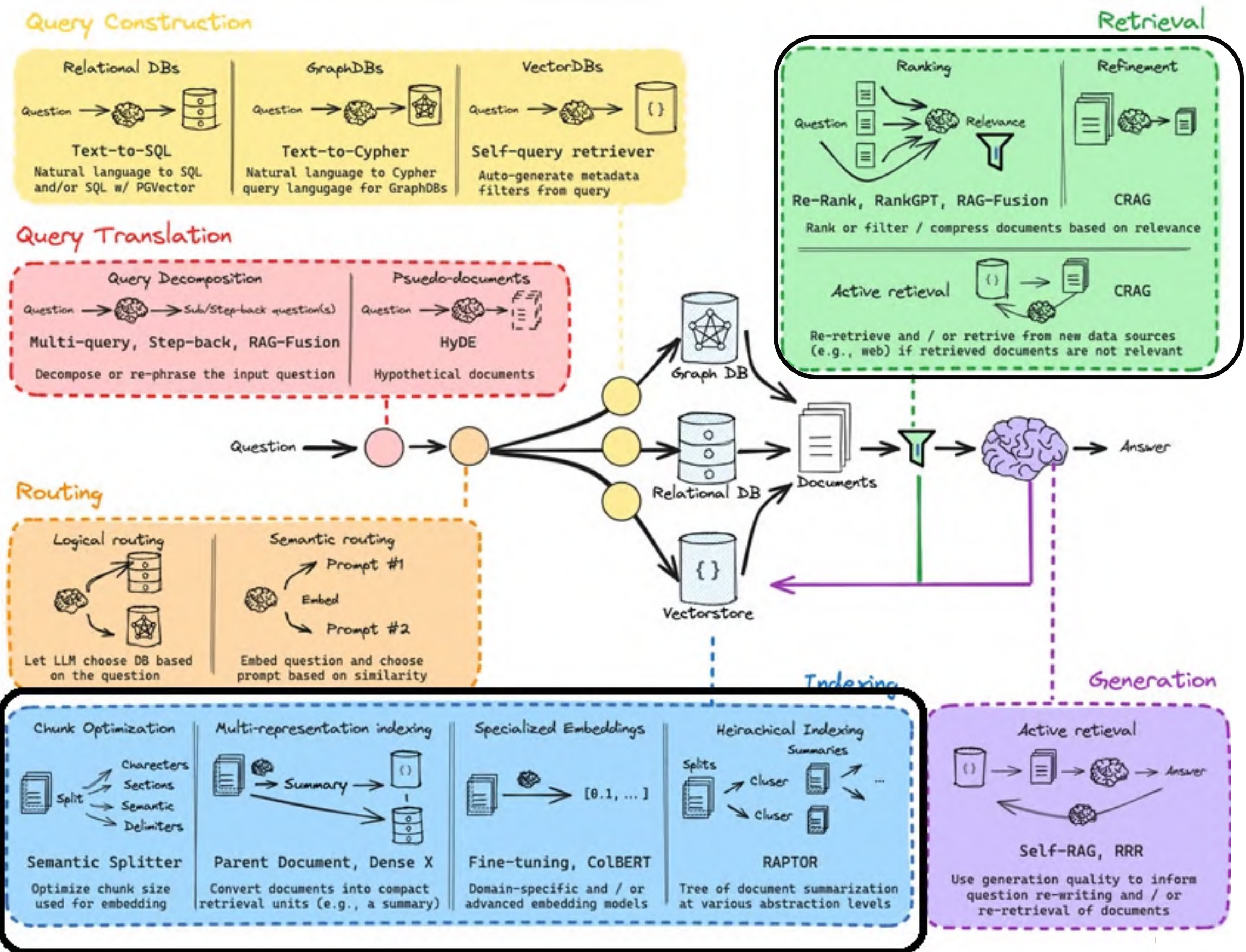
# RAG

Retrieval-Augmented Generation

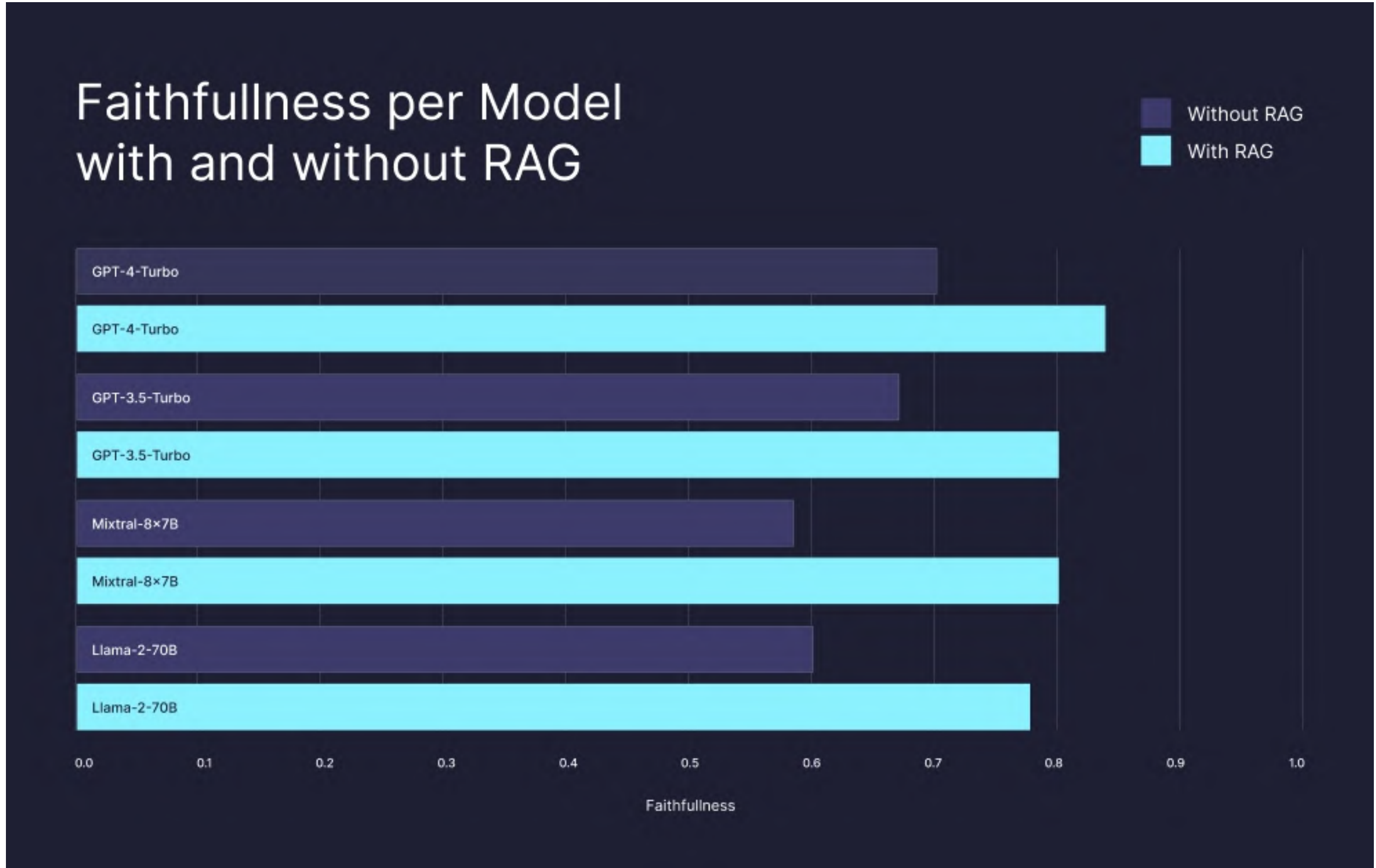
# A (very) simplified RAG



# RAG can get sophisticated



# AI is smarter with RAG



# RAG with Financial Structured Data

Financial Reports



Transactions



Portfolio Performance



Structured Data is **quantitative**.

# You are sitting on a **gold mine**

Financial Services will have created

**+5 PB\***

of data

=> printed A4 would cover the globe 6 times

**68%**

of this data is not used

**80%**

is unstructured

# Structured vs. Unstructured Data

Structured data	Properties	Unstructured data
Defined, relational	Data types	Undefined, non-relational
Machine learning	Uses	Natural language processing and text mining
Sourced from online relational and tabular forms	Source location	Sourced from videos, emails, documents, social media, etc.
Stored in data warehouses	Storage location	Stored in data lakes
Not flexible	Flexibility	Flexible
Requires less storage	Storage size	Requires a lot of storage
SQL	Examples	JPEG, DOC, PDFs, MOV, etc



# RAG with Financial Unstructured Data

Memo, Reports etc.



Emails, Notes, Calls etc.



News, Market Data etc.



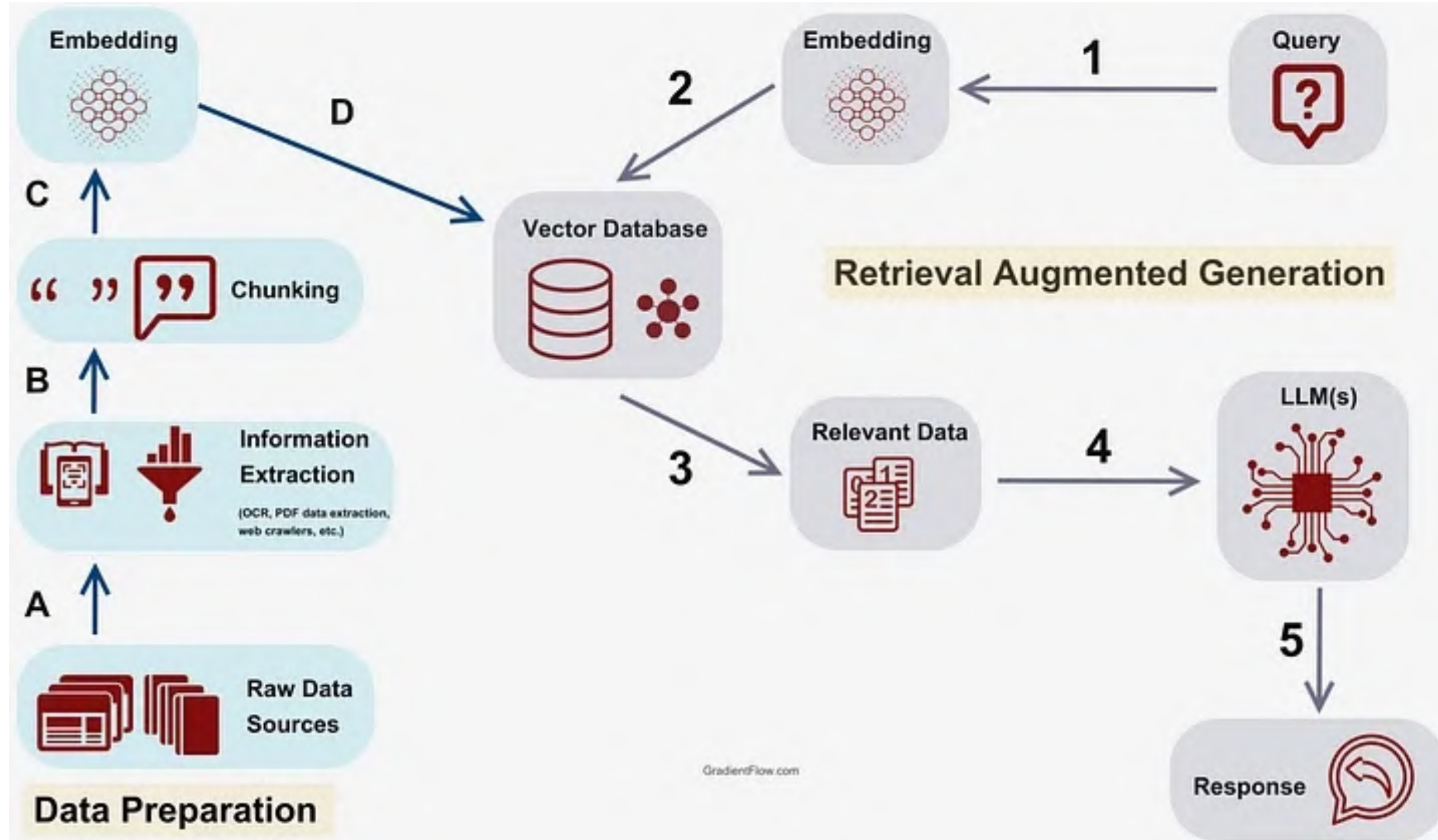
Unstructured Data is **qualitative**



## Unstructured, only for humans?

Because it's mostly qualitative, unstructured data was until now reserved to humans.

# RAG with Unstructured Data



# RAG benefits in Financial Services



**Use proprietary & historic datasets**



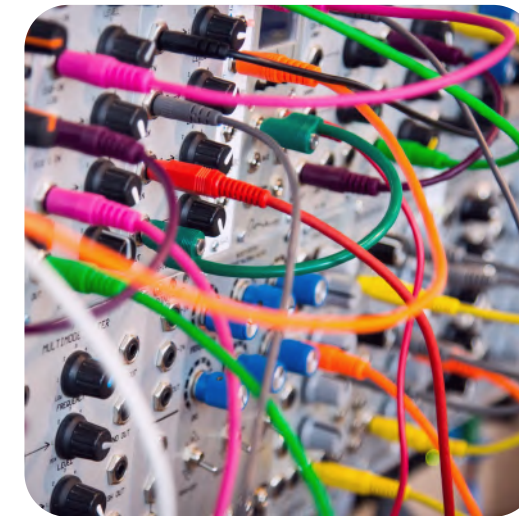
**Leverage strategic insights**



**Narrow down research**



**Faster & Cheaper than fine-tuning**



**Model Agnostic**

# How Finnt helps?

## We augment CFOs (CTRL+F Officers)

Finnt extracts crucial data from large, unstructured, and complex documents.

Finnt integrates findings into templated memos, enriched with company's historic and markets' real-time data.





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Powering finance professionals at

