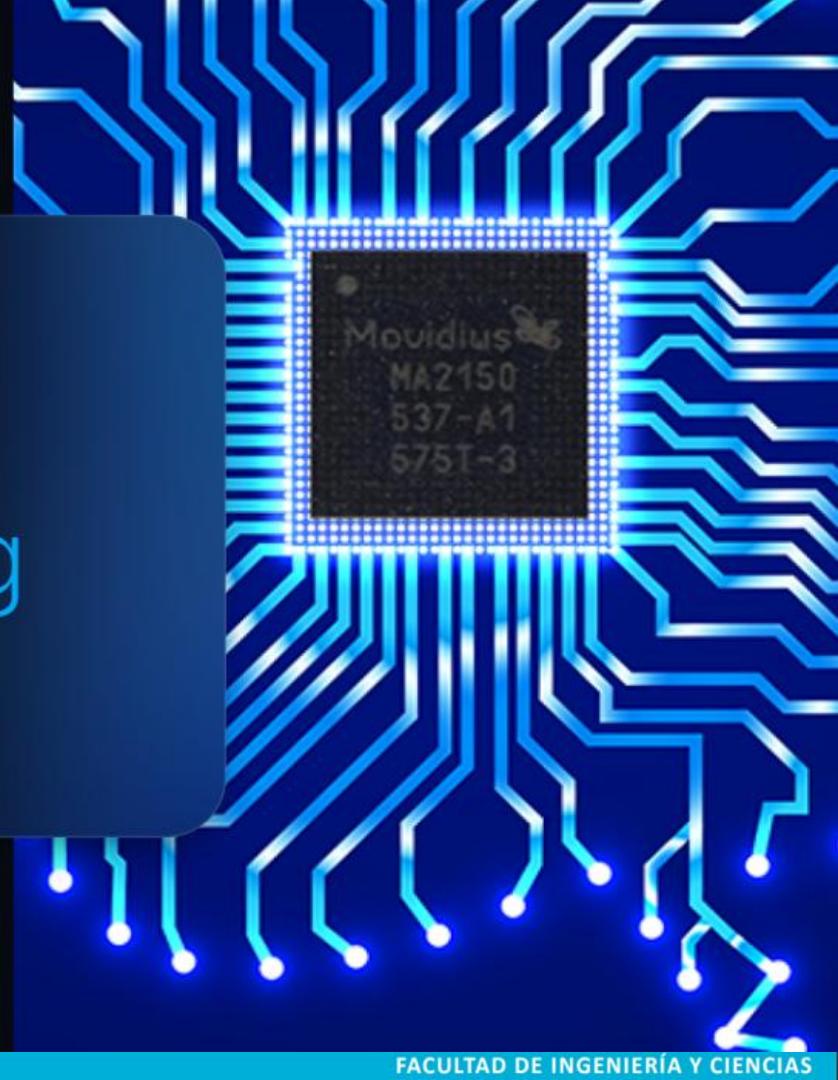




UAI
UNIVERSIDAD ADOLFO IBÁÑEZ

Prompt Engineering for Generative AI

2025



FACULTAD DE INGENIERÍA Y CIENCIAS

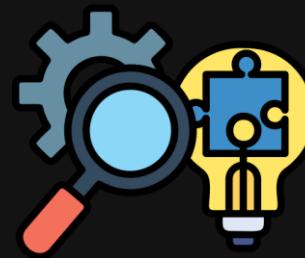
OBJETIVOS

- Comprender los conceptos fundamentales de los prompts y su aplicación en la ingeniería de IA.
- Comprender los diferentes tecnologías, técnicas y modelos como large language models (LLMM).
- Aprender a diseñar prompts claros, específicos y adaptados a tareas específicas.
- Explorar técnicas de ajuste y mejora de prompts para optimizar los resultados generados por los modelos de lenguaje.
- Crear productos basados en IA generativa usando open AI, Google Brain & Bard and Hugging Face
- Comprender la competencia entre los sistemas Cloud para la IA como AWS, GCP y Azure.
- Evaluar y controlar la salida generada por los modelos de lenguaje mediante técnicas de filtrado y clasificación.
- Reflexionar sobre las implicaciones éticas y los sesgos asociados a los prompts y su impacto en la sociedad.
- Aplicar técnicas de optimización para encontrar prompts efectivos y cumplir con métricas o restricciones específicas.
- Analizar casos de uso y aplicaciones prácticas de la ingeniería de IA basada en prompts.

Asistencia y Tareas



Tareas
Grupales
80%



Investigación
Participación
Asistencia
20%



Prompt Engineering & GEN. AI Usage

1 MM Users

ChatGPT Sprints to One Million Users

Time it took for selected online services to reach one million users

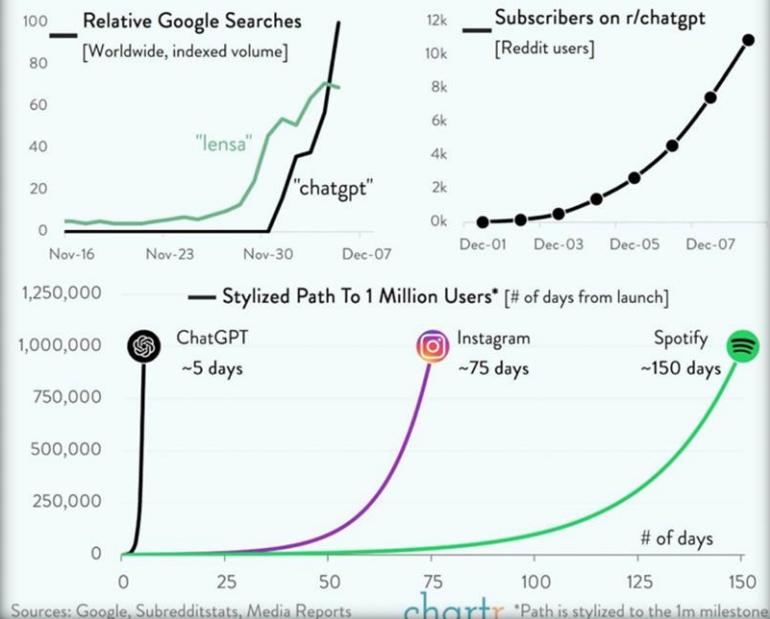


* one million backers ** one million nights booked *** one million downloads
Source: Company announcements via Business Insider/LinkedIn

statista



ChatGPT From OpenAI Is A Bot Taking The Tech World By Storm

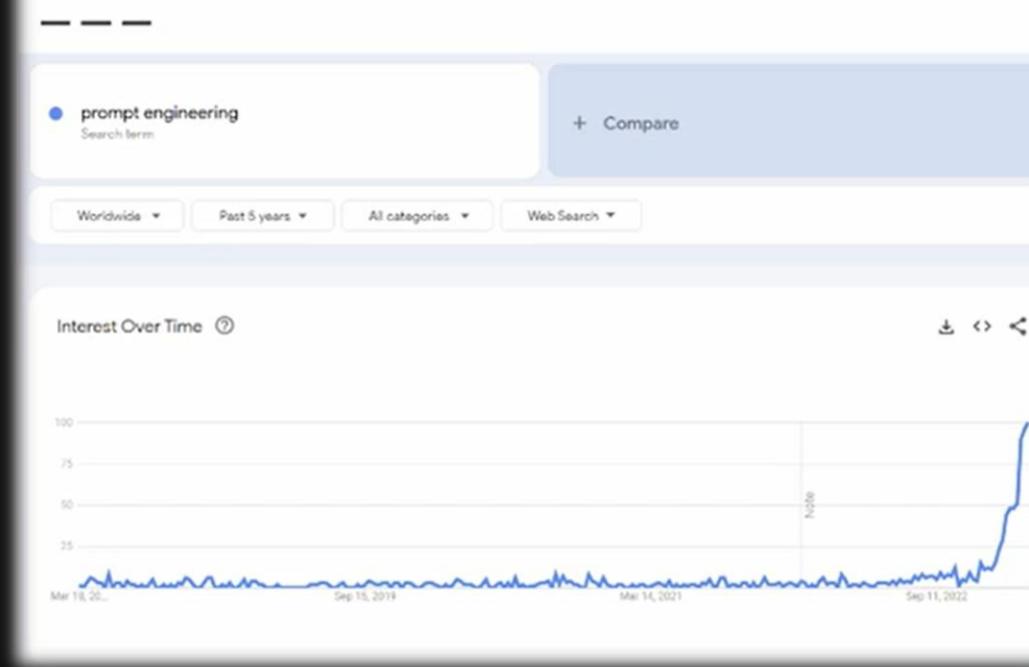


AIMultiple

Interest

Google

Prompt Engineering Interest



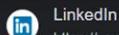
Jobs y Prompting

Quality of Ideas

Source: [Sam Altman](#)

"I don't think we'll still be doing prompt engineering in five years [i.e.] figuring out how to hack the prompt by adding one **magic word** to the end that changes everything else."

"What will always matter is the **quality of ideas** and the understanding of what you want."

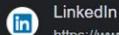


LinkedIn

<https://www.linkedin.com/pulse/the-rising-demand-for-prompt-engineers-unlocking-the-emergence-of-prompt-engineering/>

The Rising Demand for Prompt Engineers: Unlocking ...

18 ago 2023 — As we embrace the evolving world of technology, one field is rapidly gaining recognition and **demand**: **Prompt Engineering**.



LinkedIn

<https://www.linkedin.com/pulse/prompt-engineering-the-future-of-jobs-in-the-age-of-ai/>

Prompt Engineering: The Future of Jobs in the Age ...

27 mar 2023 — **Prompt engineering** is a relatively new and emerging field, but it is already in **high demand** with many companies that are using or developing ...



ABOUT US

SUSTAINABILITY AND INNOVATION

SERVICES

COMMUNICATION ROOM

3.57 EUR ▲+0.01 (+0.31%)

ES | EN



... HOME / COMMUNICATION ROOM / BLOG / PROMPT ENGINEERING: THE MOST IN-DEMAND PROFESSION OF THE FUTURE

Prompt engineering: the most in-demand profession of the future

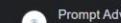


Medium

<https://medium.com/the-emergence-of-prompt-engineering/the-emergence-of-prompt-engineers-the-next-in-demand-profession-18a2a2d1e3>

The Emergence Of Prompt Engineers: The Next In ...

22 ago 2023 — Instructional Programmes and Professional Credentials for Future Prompt Engineers. Aspiring professionals in AI **prompt engineering** can ...

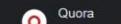


Prompt Advisers

<https://www.promptadvisers.com/post/unleashing-the-power-of-prompt-engineering>

The Future of High-Demand Jobs

21 mar 2023 — The future of prompt engineering is not only limited to traditional engineering roles but also includes **new and emerging fields such as software** ...



Quora

<https://www.quora.com/Will-prompt-engineering-be-the-future-of-jobs>

Will prompt engineering be the job of the future?

25 jul 2023 — In the future, **prompt engineering** is likely to become even more important as **AI technology** continues to advance and become more integrated into our daily lives.

2 respuestas · 2 votos: No doubt it will be an important ingredient in shaping the future. We ar...

[What's the future of prompt engineering? - Quora](#)

6 respuestas · 20 ene 2023

[What are some examples of prompt engineering skills ...](#)

1 respuesta · 14 jul 2023

[Is prompt engineering the future of jobs, or is it an ...](#)

7 respuestas · 16 feb 2023

[Is prompt engineering worth it in the next few years ...](#)

4 respuestas · 8 jul 2023

Más resultados de [www.quora.com](https://www.quora.com/Will-prompt-engineering-be-the-future-of-jobs)



NEWS



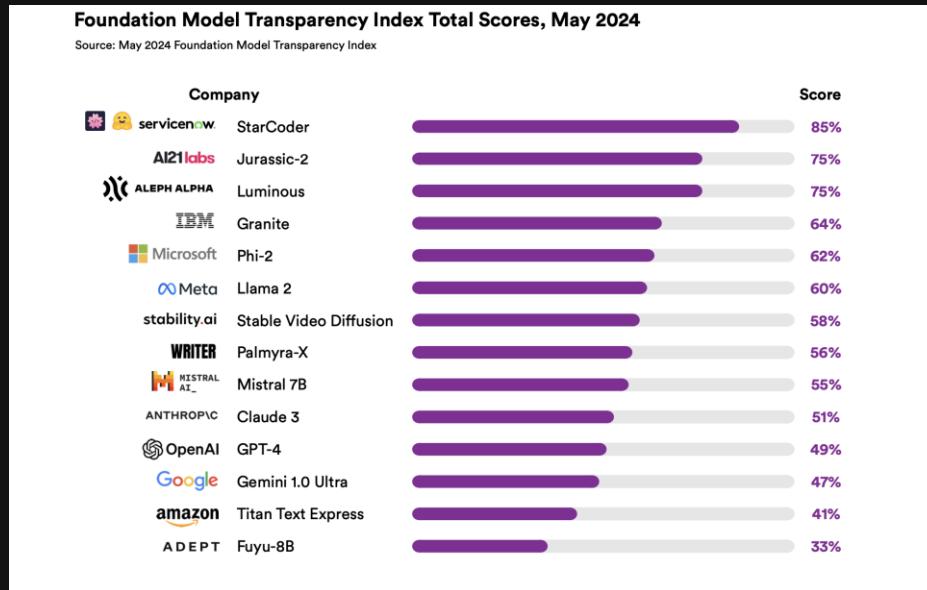
Models 2025



| | |
|-----------------|---|
| January | DeepSeek R1 Qwen 2.5-Max o3-mini |
| February | Gemini 2.0 Flash Gemini 2.0 Pro Grok 3 Grok 3 mini Claude 3.7 (Sonnet) QwQ-Max (preview) GPT-4.5 |
| March | Gemma 3 (1 B · 4 B · 12 B · 27 B) Gemini 2.5 Pro (public preview) Llama 4 Scout Llama 4 Maverick GPT-4.1 GPT-4.1-mini GPT-4.1-nano o3 (full) o4-mini Gemini 2.5 Flash (preview) Gemma 3 QAT (1 B · 4 B · 12 B · 27 B) |
| April | |



AI Transparency Stanford



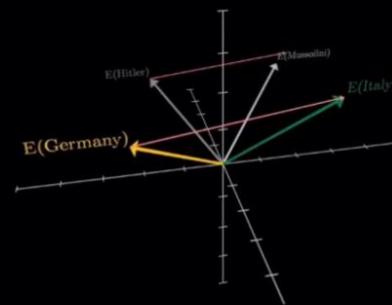
2024

<https://crfm.stanford.edu/fmti/May-2024/index.html>



ChatGPT: Visualizing Words in Space

$$E(\text{Hitler}) + E(\text{Italy}) - E(\text{Germany}) \approx E(\text{Mussolini})$$



IQ & Market

Former OpenAI researcher Daniel Kokotajlo and the AI Futures Project published "AI 2027," predicting advancement to superhuman AI within two years, potentially triggering an intelligence explosion with consequences for humanity.

The report outlines a timeline starting with increasingly capable AI agents in 2025, evolving into superhuman coding systems and then full AGI by 2027.

The paper details two scenarios: one where nations push ahead despite safety concerns and another where a slowdown enables better safety measures.

AI 2027

Artificial Superintelligence

3000x AI Model Multiplier

Superhuman Remote Worker

1000x AI Model Multiplier

Superhuman Coder

4x AI Model Multiplier

USG captured by AGI
Branch point: slowdown or race?
Adversarial misalignment detected
Alignment gets solved

AI 2027: a deeply-researched scenario

2024 - 96 IQ

This site quizzes 9 AIs every week | Last Updated: 09:38AM EDT on May 28, 2024

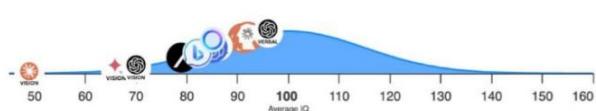
IQ Test Results

Reset

Show Offline Test

Show Mensa Norway

Score reflects average of last 7 tests given



2025 - 136 IQ

This site quizzes 20 Verbal & 6 Vision AIs every week | Last Updated: 06:03PM EDT on April 17, 2025

IQ Test Results

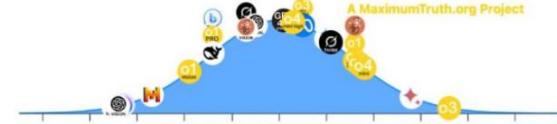
Mensa Norway IQ Scores (Average of last 7 tests)

Reset

Show Offline Test

Show Mensa Norway

TrackingAI.org
Mensa Norway quiz
A MaximumTruth.org Project



Claude-3 Opus

Mistral

Gemini Advanced (Vision)

Gemini 2.5 Pro Exp.

OPT-40

Grok-3

Llama-3.2 (Vision)

Gemini 2.0 Flash Thinking Exp.

GPT-4o (Vision)

Bing Copilot

OpenAI o1 Pro

1/3



Alex Wang · Following

Learn AI Together - I share my learning journe...

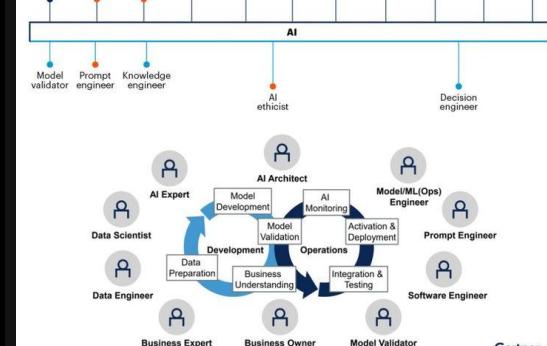
6h

...

X

We talk a lot about the jobs AI might replace. But not enough about the ones it's creating.
[...more](#)

New Roles for AI



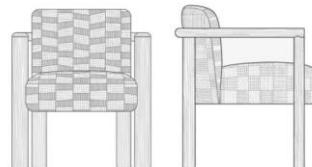
4,670

179 comments · 531 reposts

IMGs & Videos



Chat GPT



02

IMAGINE YOUR MOTION

Large gorilla adjusts his position. Pedestrians move in the...

Generate

To get the motion you want, start with a **clear idea**, then build your prompt using these elements →



Google just dropped a wave of **AI updates** at Cloud Next 2025—and it's stacked.



Learn to build AI Agents using Agent Frameworks

Apply for our next cohort

Figures IMG

PHOENICIA
ヰニクノフ



Passport



Creación
&
Modificación

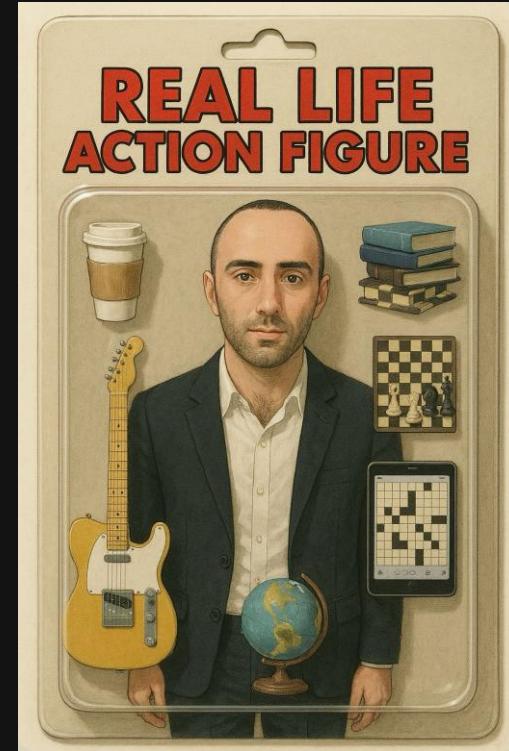
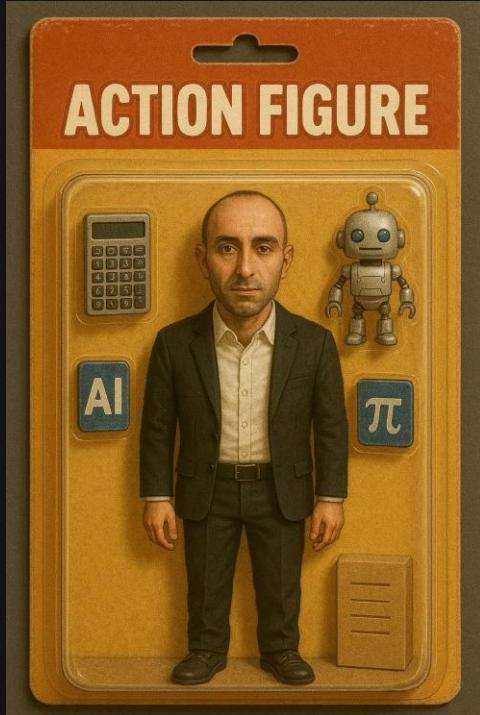
PHOENICIA
ヰニクノフ



Passport



Figures IMG



High-quality videos
from text & images



Current Limitations



Morphing



Movement



Text



Janus

<https://lumalabs.ai/dream-machine>



Explore

My library



All

My Favorites

Pika 1.5



We're experiencing high demand right now (how flattering)!

Upgrade for faster generations

Retry

Reprompt



Retry

Reprompt



Retry

Reprompt

<https://pika.art/>

Docs & Tasks



Canva

Diseño ▾ Negocios ▾ Educación ▾ Planes y precios ▾ Aprender ▾

Iniciar sesión Registrarme

¿Qué diseñaremos hoy?

Con Canva, es muy fácil crear, compartir e imprimir diseños profesionales.

Quiero diseñar

Canva Docs

Pizarras online

Presentaciones

Redes sociales

Videos

Impresiones

Sitios web

https://www.canva.com/es_419/

Hey, what's on your mind today?

Message Copilot



Quick response

+

Write a first draft

Get advice

Learn something new

Create an image

Make a plan

Brainstorm ideas

Practice a language

Take a quiz

<https://adoption.microsoft.com/es-es/copilot/>



Microsoft 365 Copilot

Ofrezca valor y satisfacción a sus empleados con nuestras herramientas p Microsoft 365 Copilot Chat, Microsoft 365 Copilot y la implementación y adopción de agentes. Esta potente tecnología combina la potencia de los grandes modelos lingüísticos (LLM) con los datos de su organización, todo en el flujo de trabajo, para convertir sus palabras en una de las herramientas de productividad más potentes del planeta.

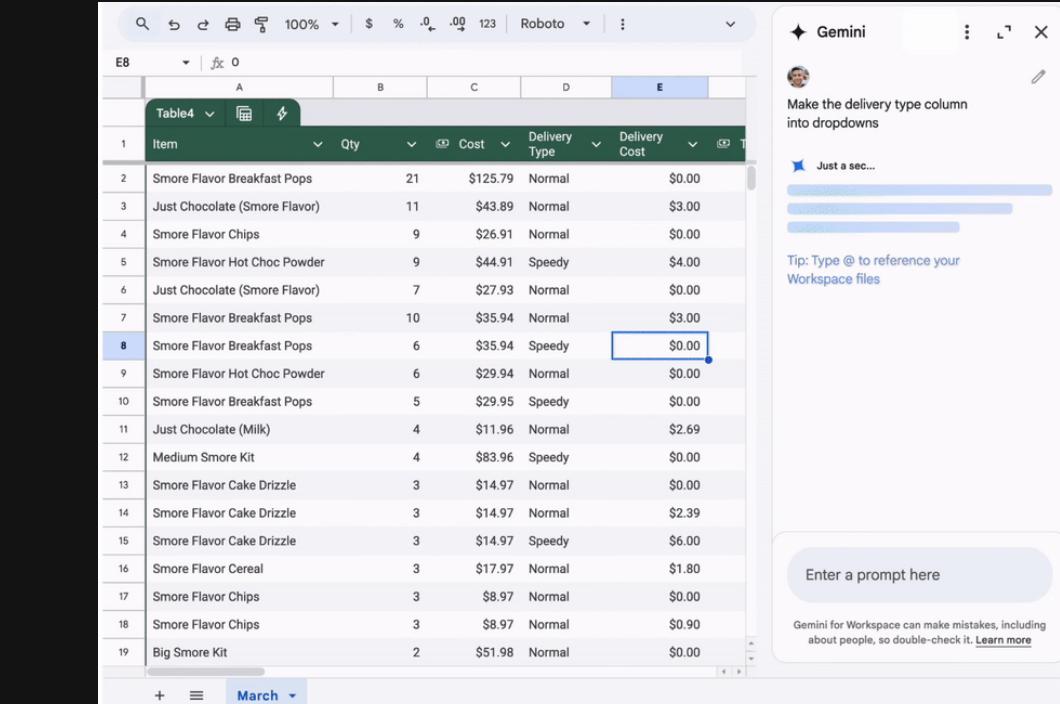
> Vea nuestras noticias de la Ola 2

> Escuche a Satya Nadella

Gemini Google Docs ☺

Explore Gemini in Sheets

| Action | Description |
|----------------------------|--|
| Ask Gemini ♦ | Open Gemini. |
| More options : | Clear your recent Gemini history and ask for more suggestions. |
| Expand ↗ | Make Gemini larger. |
| Collapse ↘ | Return Gemini to its original size. |
| Close ✕ | Close Gemini. |
| Clear history 🗑 | Remove all generated text and images you did not insert into the document yet. |
| More suggestions 📄 | Find more suggestions from Gemini. |
| More image suggestions 📸 | Find more suggestions of images from Gemini. |
| Insert ↵ | Insert generated text into your spreadsheet. |
| Insert image ← | Insert a generated image into your spreadsheet. |
| Copy 🖉 | Copy a suggestion. |
| Retry ⏪ | Generate a different response from Gemini. |
| Retry with Google Search 🌐 | Search on Google for more information about your question or request. |
| View more ... | View more of the response from Gemini. |
| View less _ | Minimize the response from Gemini. |



The screenshot shows a Google Sheets document titled "Table4". The table has columns for Item, Qty, Cost, Delivery Type, and Delivery Cost. A row for "Smore Flavor Breakfast Pops" is selected, and the "Delivery Cost" cell is highlighted with a blue border. To the right of the sheet, the Gemini sidebar is open. It displays a message from Gemini suggesting to make the "Delivery type column into dropdowns". Below that is a progress bar with the text "Just a sec...". Further down, there's a tip: "Tip: Type @ to reference your Workspace files". At the bottom of the sidebar is a text input field labeled "Enter a prompt here".

| Item | Qty | Cost | Delivery Type | Delivery Cost |
|-------------------------------|-----|----------|---------------|---------------|
| Smore Flavor Breakfast Pops | 21 | \$125.79 | Normal | \$0.00 |
| Just Chocolate (Smore Flavor) | 11 | \$43.89 | Normal | \$3.00 |
| Smore Flavor Chips | 9 | \$26.91 | Normal | \$0.00 |
| Smore Flavor Hot Choc Powder | 9 | \$44.91 | Speedy | \$4.00 |
| Just Chocolate (Smore Flavor) | 7 | \$27.93 | Normal | \$0.00 |
| Smore Flavor Breakfast Pops | 10 | \$35.94 | Normal | \$3.00 |
| Smore Flavor Breakfast Pops | 6 | \$35.94 | Speedy | \$0.00 |
| Smore Flavor Hot Choc Powder | 6 | \$29.94 | Normal | \$0.00 |
| Smore Flavor Breakfast Pops | 5 | \$29.95 | Speedy | \$0.00 |
| Just Chocolate (Milk) | 4 | \$11.96 | Normal | \$2.69 |
| Medium Smore Kit | 4 | \$83.96 | Speedy | \$0.00 |
| Smore Flavor Cake Drizzle | 3 | \$14.97 | Normal | \$0.00 |
| Smore Flavor Cake Drizzle | 3 | \$14.97 | Normal | \$2.39 |
| Smore Flavor Cake Drizzle | 3 | \$14.97 | Speedy | \$6.00 |
| Smore Flavor Cereal | 3 | \$17.97 | Normal | \$1.80 |
| Smore Flavor Chips | 3 | \$8.97 | Normal | \$0.00 |
| Smore Flavor Chips | 3 | \$8.97 | Normal | \$0.90 |
| Big Smore Kit | 2 | \$51.98 | Normal | \$0.00 |

<https://support.google.com/docs/answer/14218565?hl=en>

Code Systems



Agentes

Google
Cloud
Next 25

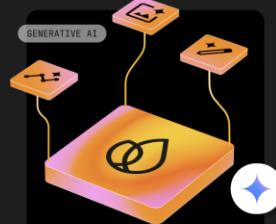
Build and manage
multi-agent
systems with
Vertex AI



Build AI-powered
apps faster with
Firebase

Harness the power of generative AI to build better apps and work smarter with AI assistance embedded throughout our platform.

Build with Gemini



Azure DevOps Services | Azure Pipelines | Agentes de Azure Pipelines.

Artículo • 31/01/2025 • 33 colaboradores

En este artículo

- Agentes hospedados por Microsoft
- Agentes autohosteados
- Agentes de conjunto de escalado de máquinas virtuales
- Agentes de grupos de DevOps administrados
- Mostrar 10 más

Azure DevOps Services | Azure DevOps Services

Para compilar el código o implementar el software que crece el código base y el equipo, necesita configurar los agentes de Azure DevOps.

Cuando la canalización se ejecuta, el sistema con software de agente instalado que ejecuta el código se conecta a los agentes.

Azure Pipelines proporciona varios tipos diferentes de agentes para que pueda escalar su capacidad de ejecución.

Presentamos Fundición de IA de Azure, tu Kit de herramientas todo en uno para crear aplicaciones de IA transformadoras.

Azure OpenAI Service

Compile soluciones de IA generativa con Azure OpenAI.

Use modelos de IA de vanguardia como GPT-4o, DALL-E y la serie o1 de Azure para crear experiencias personalizadas con tecnología de IA.

Introducción a Azure | Crear con Fundición de IA de Azure

Generative AI + Amazon Bedrock + Agents

Amazon Bedrock Agents

Enable generative AI applications to automate multistep tasks seamlessly connecting with company systems, APIs, and data sources.

Amazon Bedrock Agents demo

aws | Amazon

Soluciones de Azure AI

Cree el futuro con Azure AI Foundry.

Introducción a Azure | Explore Fundición de IA de Azure

Presentamos Fundición de IA de Azure, tu Kit de herramientas todo en uno para crear aplicaciones de IA transformadoras.

Microsoft | Azure | Explorar | Productos | Soluciones | Precios | Partners | Recursos | Más información | Buscar | Aprender | Asistencia |

Join AI Skills Fast Challenge | Eventos

FACULTAD DE INGENIERÍA Y CIENCIAS

Models

| MODEL | AGENTIC STRENGTHS |
|----------------|---|
| o1 and o3-mini | Best for long-term planning, hard tasks, and reasoning. |
| GPT-4.5 | Best for agentic execution. |
| GPT-4o | Good balance of agentic capability and latency. |
| GPT-4o-mini | Best for low-latency. |

Large language models (LLMs) are at the core of many agentic systems, responsible for making decisions and interacting with the world. OpenAI's models support a wide range of capabilities:

- **High intelligence:** Capable of [reasoning](#) and planning to tackle the most difficult tasks.
- **Tools:** [Call your functions](#) and leverage OpenAI's [built-in tools](#).
- **Multimodality:** Natively understand text, images, audio, code, and documents.
- **Low-latency:** Support for [real-time audio](#) conversations and smaller, faster models.

For detailed model comparisons, visit the [models](#) page.

<https://platform.openai.com/docs/guides/agents>

Agents

 [Copy page](#)

Learn how to build agents with the OpenAI API.

Agents represent **systems** that intelligently accomplish **tasks**, ranging from executing simple workflows to pursuing complex, open-ended objectives.

OpenAI provides a rich set of composable primitives that enable you to build agents. This guide walks through those primitives, and how they come together to form a robust agentic platform.

Overview

Building agents involves assembling components across several domains—such as **models**, **tools**, **knowledge and memory**, **audio and speech**, **guardrails**, and **orchestration**—and OpenAI provides composable primitives for each.

| DOMAIN | DESCRIPTION | OPENAI PRIMITIVES |
|----------------------|--|---|
| Models | Core intelligence capable of reasoning, making decisions, and processing different modalities. | o1 , o3-mini , GPT-4.5 , GPT-4o , GPT-4o-mini |
| Tools | Interface to the world, interact with environment, function calling, built-in tools, etc. | Function calling , Web search , File search , Computer use |
| Knowledge and memory | Augment agents with external and persistent knowledge. | Vector stores , File search , Embeddings |
| Audio and speech | Create agents that can understand audio and respond back in natural language. | Audio generation , realtime , Audio agents |
| Guardrails | Prevent irrelevant, harmful, or undesirable behavior. | Moderation , Instruction hierarchy |
| Orchestration | Develop, deploy, monitor, and improve agents. | Agents SDK , Tracing , Evaluations , Fine-tuning |
| Voice agents | Create agents that can understand audio and respond back in natural language. | Realtime API , Voice support in the Agents SDK |

The screenshot shows the Bolt website homepage. At the top left is the word "bolt" in a lowercase, bold, sans-serif font. To its right is a circular button containing a lightning bolt icon and the text "\$1M+ Hackathon registration is live!". Below this is a large, bold, white text area with the question "What do you want to build?". Underneath it, smaller text reads "Prompt, run, edit, and deploy full-stack **web** and **mobile** apps.". A search bar contains the placeholder "How can Bolt help you today?". Below the search bar are two small icons: a gear and a plus sign. At the bottom of the page, there are several buttons for different actions: "Import from Figma", "Build a mobile app with Expo", "Start a blog with Astro", "Create a docs site with Vitepress", "Scaffold UI with shadcn", and "Draft a presentation with Slidev". Below these buttons is the text "or start a blank app with your favorite stack". A row of icons for various stacks follows: Next.js, Vite, Next.js, Next.js, React, Tailwind CSS, and Vite.

<https://bolt.new/>



Built to keep you in *flow state*

The first agentic IDE, and then some. The Windsurf Editor is where the work of developers and AI truly flow together, allowing for a coding experience that feels like literal magic.



Download the Windsurf Editor

See all download options

<https://windsurf.com/editor>

What can I help you ship?

Ask v0 to build...

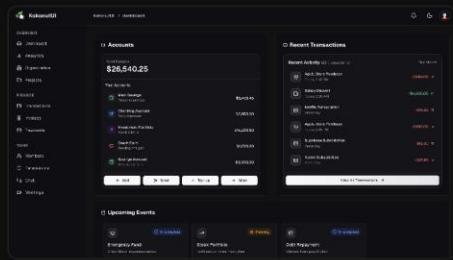
No project selected

Clone a Screenshot Import from Figma Landing Page Sign Up Form Calculate Factorial

From the Community

Explore what the community is building with v0.

Browse All >



Financial Dashboard
14K Forks



Cuisine Selector Chips
3.6K Forks



Ai Card Generation
3.7K Forks

<https://v0.dev/>

Utilidades Audios & Sonidos





BETA

Start a Free Trial

Sign In

Sign Up

Make your music

Create any song. Just describe it.

The emergence of plant life, an orchestral arrangement



Create

Create in one click...

The autobiography of a dollar bill, bluegrass rap, country trap

A love story between two AIs in a server farm, synthwave, edm

Une chanson française sur la dépression, chanson

A song about socks disappearing in the wash, 80s, punk rock

<https://www.udio.com/home>

The screenshot shows the Bland AI website homepage. At the top, there's a navigation bar with links for "HOW IT WORKS", "BLOG", "DOCS", "USE CASES", "PARTNERS", "SIGN UP", and a dropdown menu for "ENTERPRISE". Below the navigation, the main heading "AI Phone Calls." is displayed. Underneath it, a sub-heading "AUTOMATE YOUR PHONE CALLS WITH AI →" is followed by a large image of a smartphone screen. The phone screen displays a text message from "Bland AI" at "8:22pm" with the content: "Hey there, I'm Bland, your new AI phone calling agent. I can make millions of phone calls 24/7, in any voice, and for any use case. Call me and I even sound like a human, but I'll let you be the judge of that." Below the message, there are two buttons: "Enter your number" and "CALL ME". The background of the page features a grid pattern.

<https://www.bland.ai/>

ELE  ENTE

Playground AI Voice Assistants

Discover and navigate through our voice assistant playground, offering a user-friendly environment for easy testing.



Daniela
Customer Support Representative
Outbound
I'm Daniela, a friendly survey assistant at SurveyPro, I want to ask you some questions about your experience at the Chilean Postal.

Talk to me



Domi
Friendly Reservation Assistant
Inbound
Hi there! I'm Domi, your helpful reservation assistant. I'm here to make your booking experience at Urban Hotel seamless and enjoyable.

Talk to me



Dave
Printer Technical Support Specialist
Inbound
I'm Dave, a friendly customer support representative at YourTechStore. How can I assist you with your printer installation today?

Talk to me

<https://playground.elemente.ai/>

 **QWEN-3**


Sora


Veo 2


Pika


runway

Videos

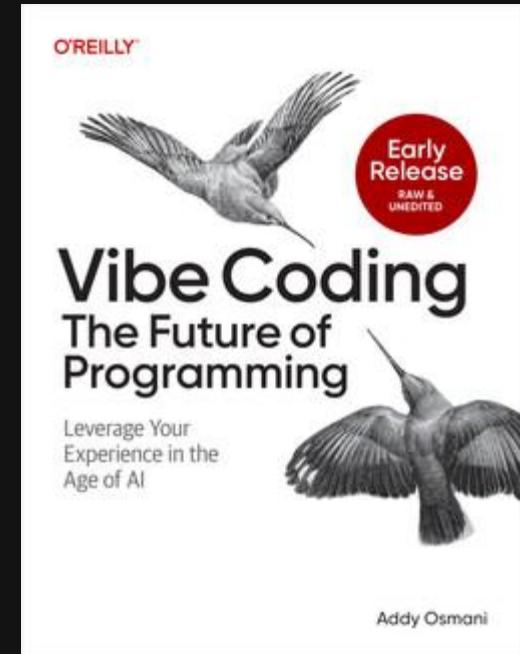


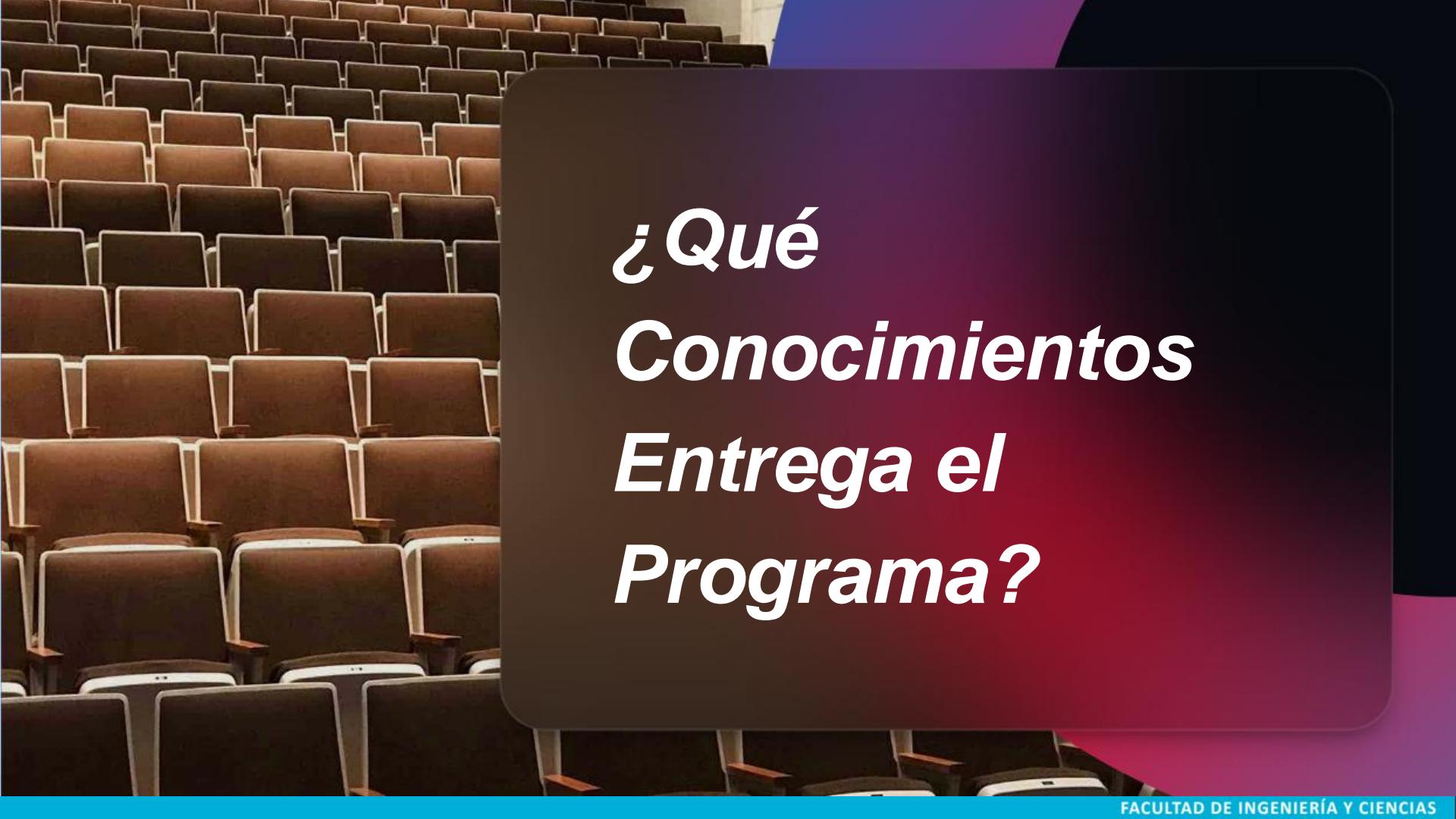
◆ Visión general creada por IA

Vibe coding is a programming paradigm where users describe software requirements in natural language to a large language model (LLM) which then generates the code. This approach shifts the programmer's focus from writing code line by line to interacting with the LLM to guide, test, and refine the generated code. The term "vibe coding" was coined by Andrej Karpathy in February 2025. 

NEWS

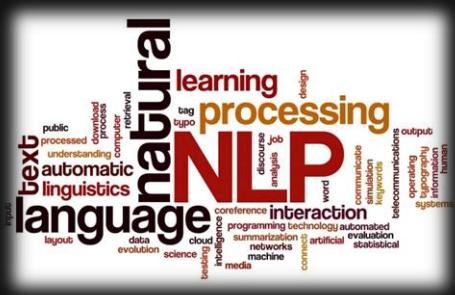
<https://www.oreilly.com/library/view/vibe-coding-the/9798341634749/>





*¿Qué
Conocimientos
Entrega el
Programa?*

Habilidades Adoptadas en el Curso



$$x_1+x_2+x_3=1$$

$$8x_1+3x_2+10x_3=15$$

$$13x_1+5x_2+6x_3=22$$

$$\int f(x,y,z)dz$$

$$x \ln x \text{ Sa}$$

$$\frac{b-c^3 \cdot \cos a}{a+b} \quad b+a \int \int \int \frac{dxdydz}{(1+x+y+z)^2}$$

$$x = \sqrt{a} \cdot \frac{dz}{dx} = \sqrt{\left(\frac{y}{x}\right)}$$

$$\frac{\Delta f}{\Delta x} \frac{5x^2+6y^3-1}{(1+x+y+z)^2}$$

Math

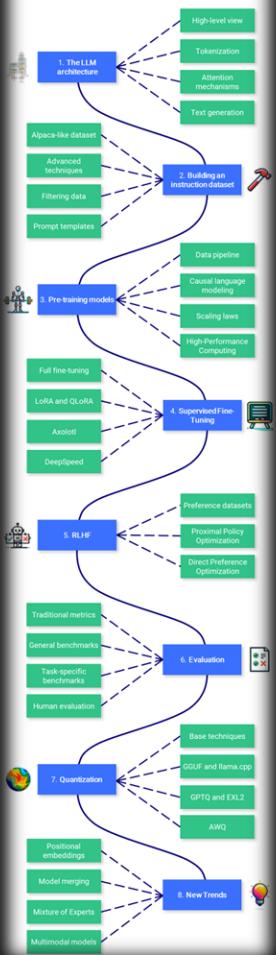
$$a+b \frac{f(x)-f(x_0)}{x-x_0}$$

$$\sqrt{2} \cdot \sin 2x \quad \frac{b-c \cdot \cos a}{a} \quad \frac{5x^2}{1} \frac{x-x_0}{a}$$

$$5x^2+14xy-2y^2-18$$

$$A \cos x \cdot \arctg \quad 2 \sin^3 52^\circ = 1$$

designed by



Supervised Fine-Tuning

Vectors

LLM Engineer

High-level view

Text generation

Embeddings

Tokenization

High-Performance Computing

RAG

Scaling laws

Attention mechanisms

Pre-training models

Reinforcement Learning

Inference

Quantization

APIs

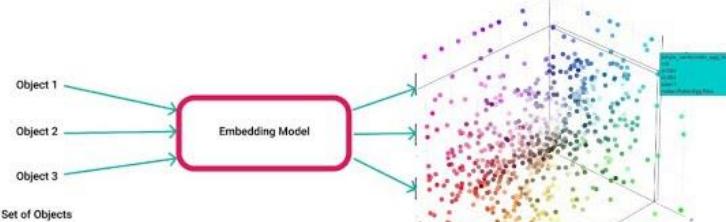
Quantization

Pipeline

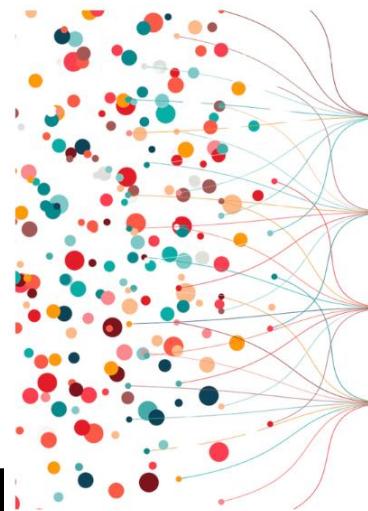
Causal language modeling

Security

INTRODUCTION TO VECTOR EMBEDDINGS

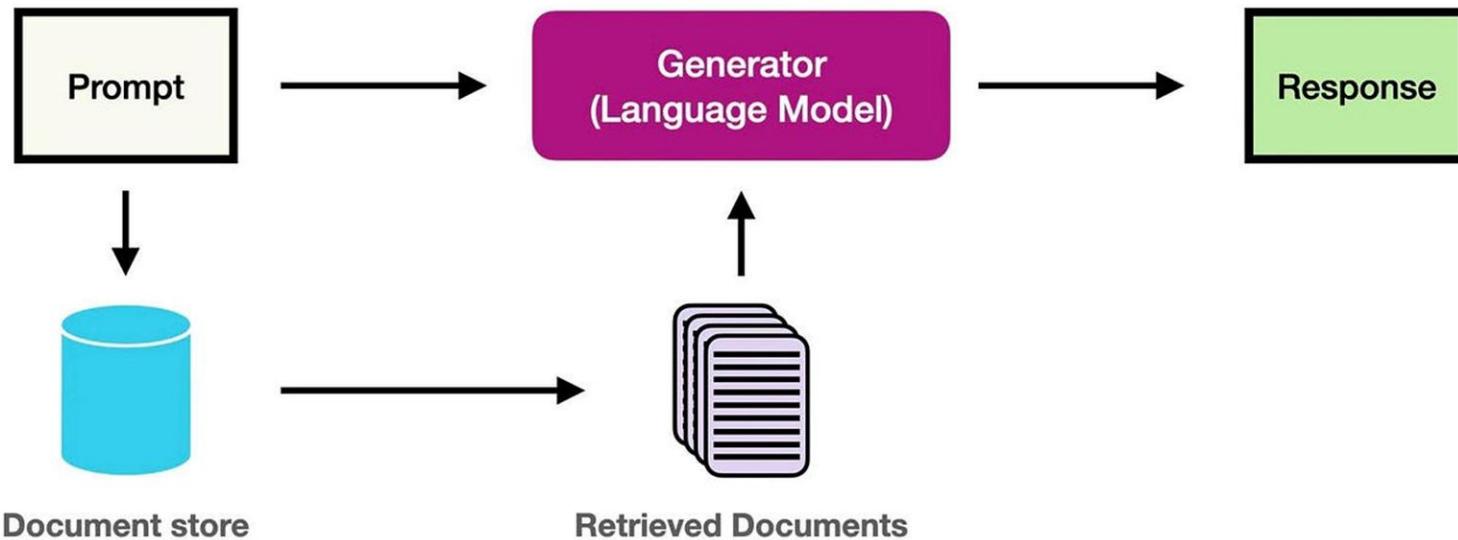


Data

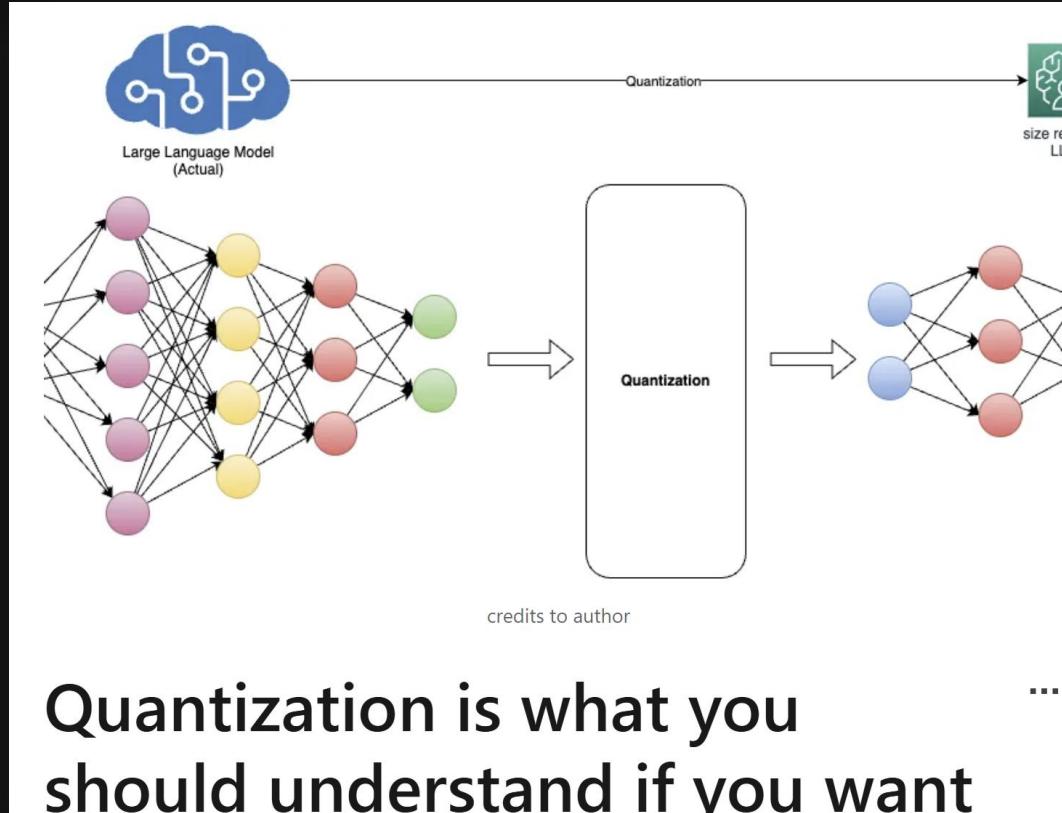


Vector Embeddings/
Vector Data

-0.32643065,
-0.12308089,
-0.2873811 ,
-0.99628943 ,
-0.2503798 ,
0.24311952 ,
0.5662387 ,
0.17282294 ,
-0.1109335 ,
0.15209009 ,
0 47017908 ,
-0.19270805 ,



Quantization



<https://www.linkedin.com/pulse/quantization-what-you-should-understand-want-run-langs-pavan-mantha>

Herramientas de Stack TECH



GitHub Copilot

Google Cloud

HEROKU

Azure



neo4j



aws



GPT-

Llamaindex



node
js

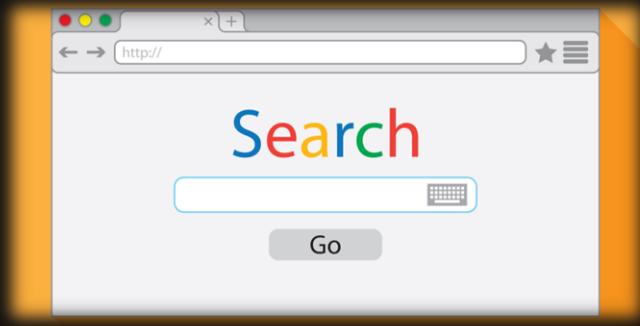


GitHub

redis

LangGraph

Que se podrá desarrollar con GEN AI?



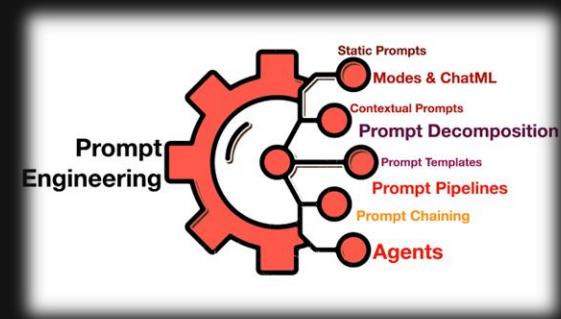
Maximización de la Utilidad de Modelos de Lenguaje: Los modelos avanzados tienen una vasta capacidad, pero la forma en que se les pregunta o instruye puede afectar significativamente la calidad y relevancia de sus respuestas. Un buen ingeniero de prompts puede obtener respuestas más precisas y útiles de estos modelos.

Aplicaciones Específicas: Para aplicaciones especializadas, como medicina, finanzas o derecho, es crucial formular preguntas adecuadamente para obtener respuestas correctas y relevantes. La ingeniería de prompts puede ser esencial en estos campos.



Automatización y Eficiencia: A medida que las empresas buscan automatizar más funciones y mejorar la eficiencia de las existentes con la ayuda de la IA, la capacidad de interactuar efectivamente con modelos de lenguaje se vuelve esencial.

Desarrollo de Interfaces Conversacionales: Chatbots, asistentes virtuales y otras interfaces conversacionales dependen de la eficacia de sus interacciones. La ingeniería de prompts juega un papel crucial en la optimización de estas interacciones.

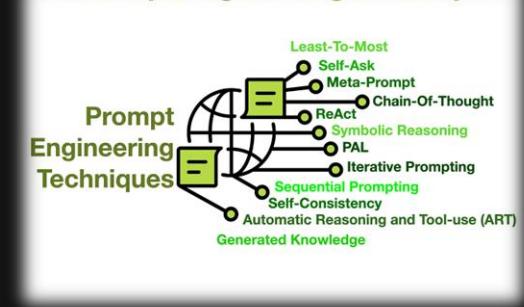


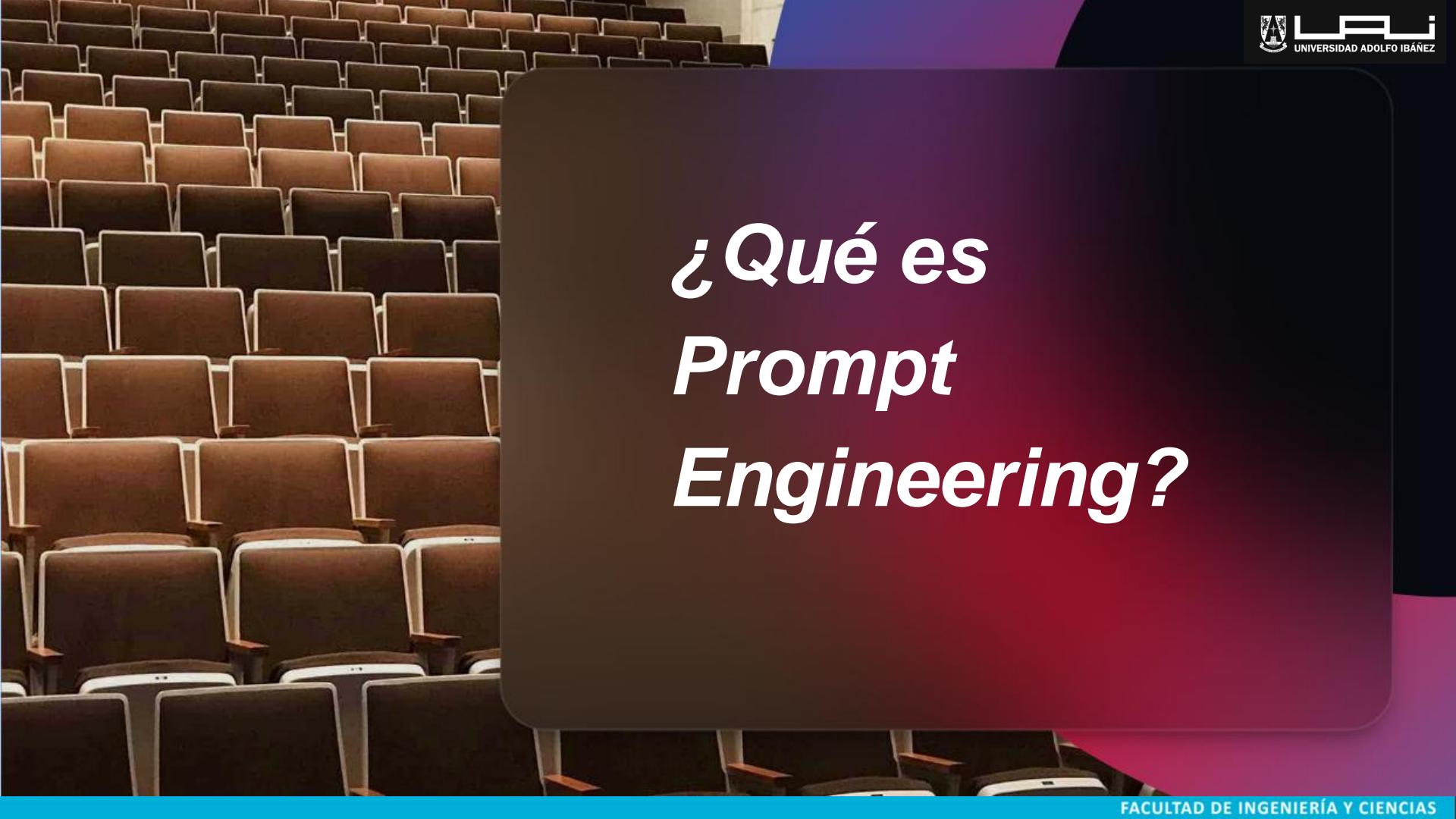
El valor de PE.:

Investigación y Desarrollo: A medida que se desarrollan modelos de lenguaje más avanzados, la investigación en cómo interactuar de manera óptima con estos modelos (incluida la ingeniería de prompts) se vuelve más importante.

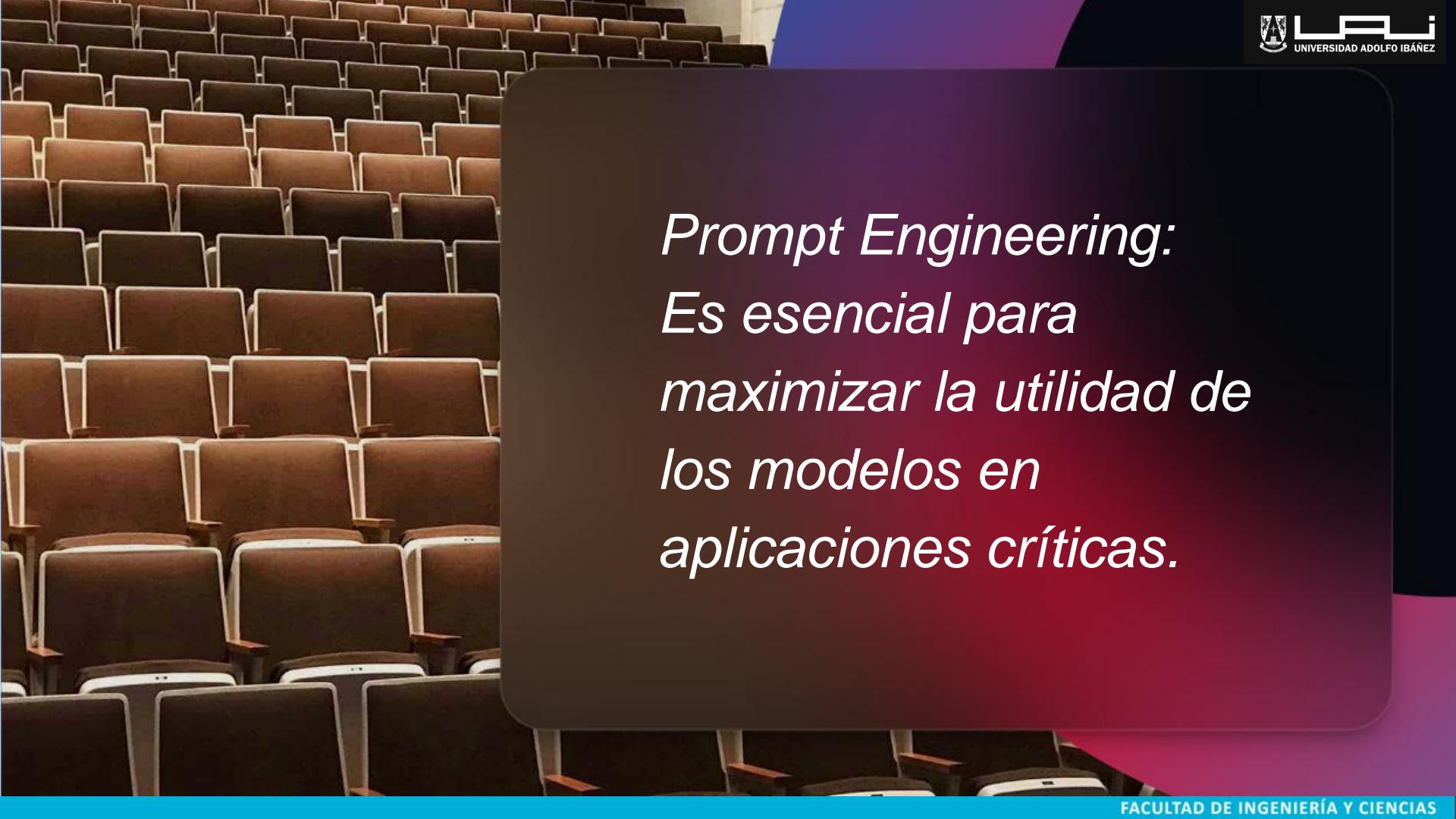
Educación y Formación: En entornos educativos, los modelos de lenguaje pueden ser herramientas valiosas. La capacidad de hacer preguntas efectivas puede mejorar la calidad del material educativo generado.

12 Prompt Engineering Techniques





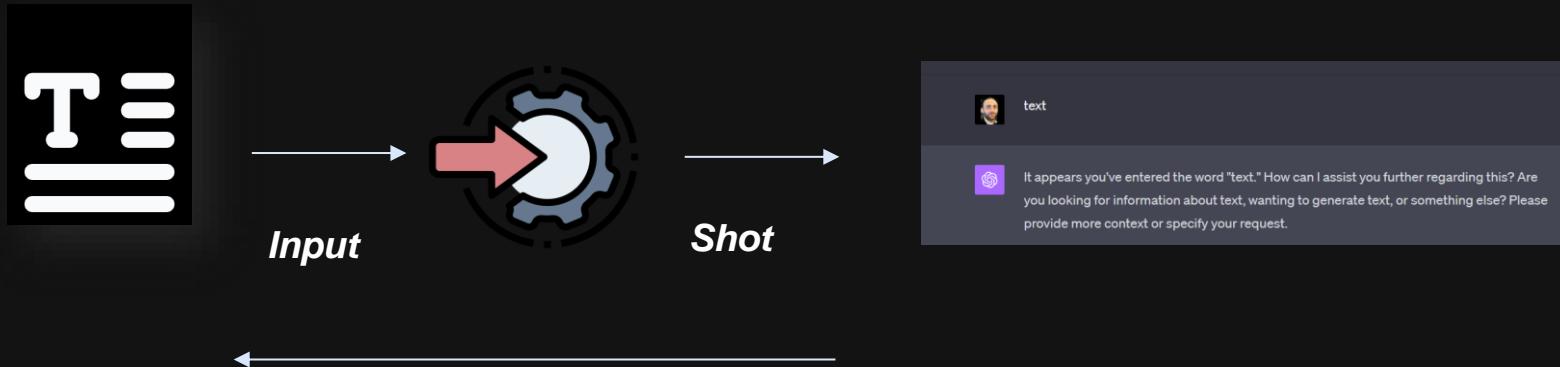
¿Qué es *Prompt* *Engineering?*



*Prompt Engineering:
Es esencial para
maximizar la utilidad de
los modelos en
aplicaciones críticas.*

¿Qué es *Prompt Engineering*?

Es el Arte, la Práctica y el Ejercicio de diseñar, refinar y optimizar los prompts (o instrucciones) que forman Input para los modelos de lenguajes, “como GPT-4”, ¡con el objetivo de obtener respuestas más precisas, relevantes o útiles bajo un proceso de “Interfacing”!

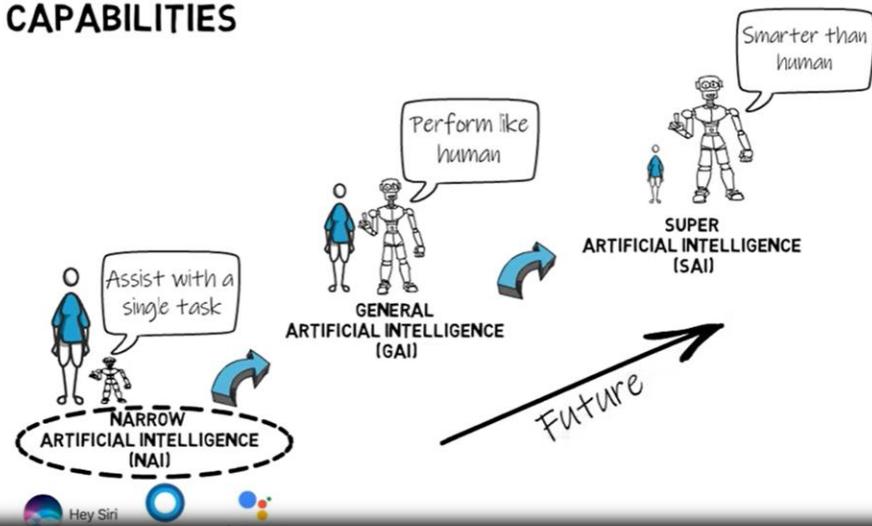


AI - Anexo

Expert - 2 – Expert Chat Model



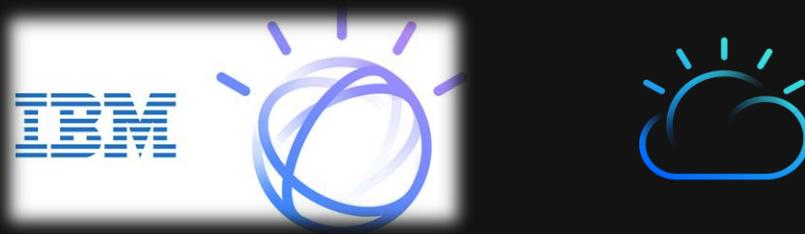
CAPABILITIES



AI – Tradicional vs Generativa



AI – Tradicional vs Generativa



IBM Watson funciona como un sistema de banco de preguntas y respuestas utilizando técnicas de árbol de decisiones.

A través de su plataforma, Watson ofrece capacidades de procesamiento del lenguaje natural (NLP) y de razonamiento que permiten construir sistemas de preguntas y respuestas basados en árboles de decisión.

Watson Assistant

Hola! mi nombre es [REDACTED]-Bot, estoy en versión Beta! Estaré funcionando durante la próxima semana, Saludos!

hola

Hola, soy [REDACTED]-Bot ¿Cómo puedo ayudarte?

quién eres?

Hola! mi nombre es [REDACTED]-Bot, estoy en versión Beta! Estaré funcionando durante la próxima semana, Saludos!

que haces?

Hola! mi nombre es [REDACTED]-Bot, estoy en versión Beta! Estaré funcionando durante la próxima semana, Saludos!

Type something... 

AI – Tradicional vs Generativa

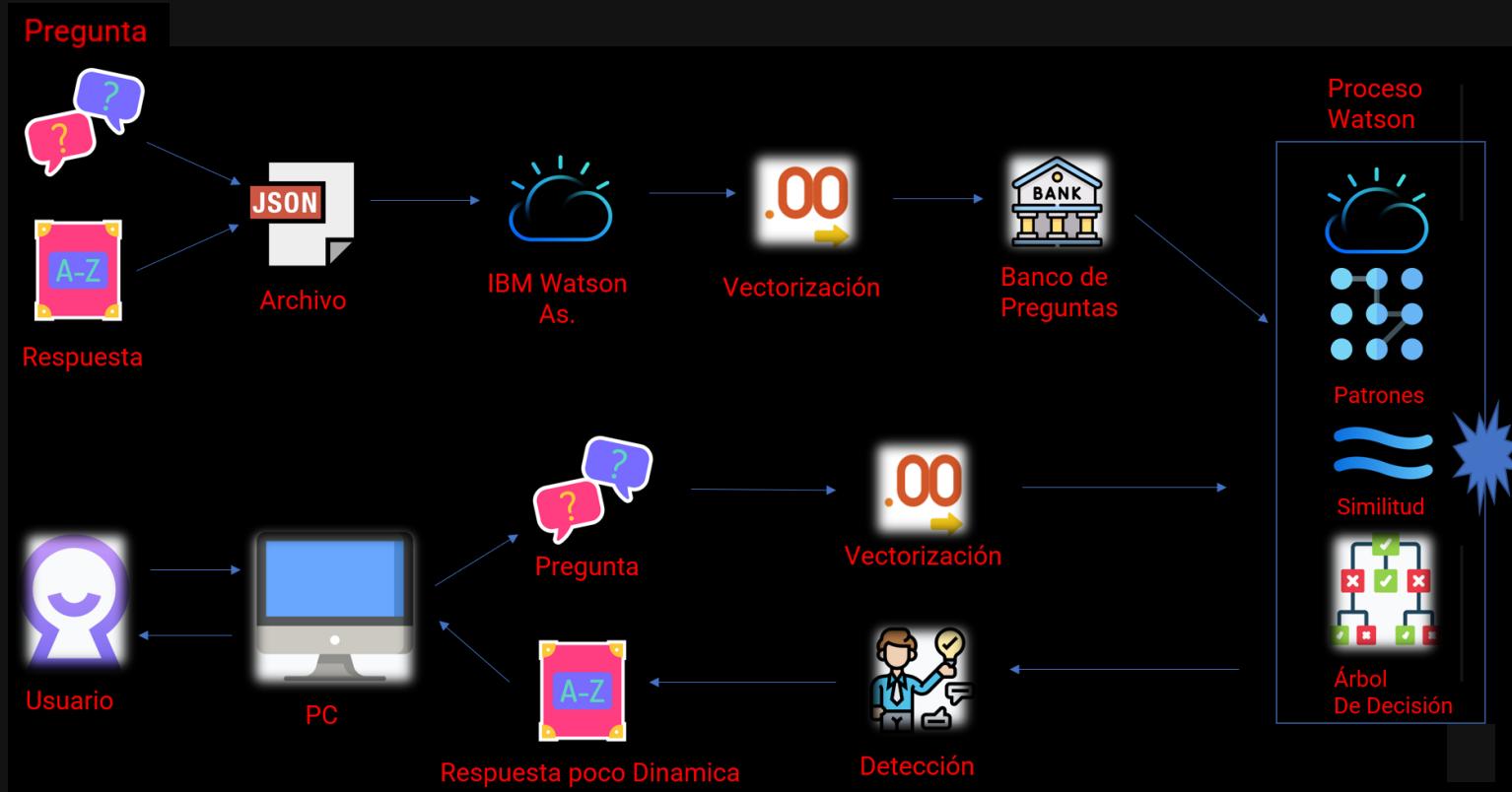


Google Dialogflow y IBM Watson comparten similitudes en términos de ser plataformas de desarrollo de chatbots y sistemas de diálogo conversacional basados en inteligencia artificial. Ambas plataformas ofrecen herramientas y servicios para construir, implementar y gestionar conversaciones interactivas con usuarios.

Ambas plataformas permiten crear chatbots y sistemas de diálogo conversacional utilizando interfaces de programación (API) y lenguajes de marcado específicos para definir flujos de conversación, respuestas y acciones del bot.

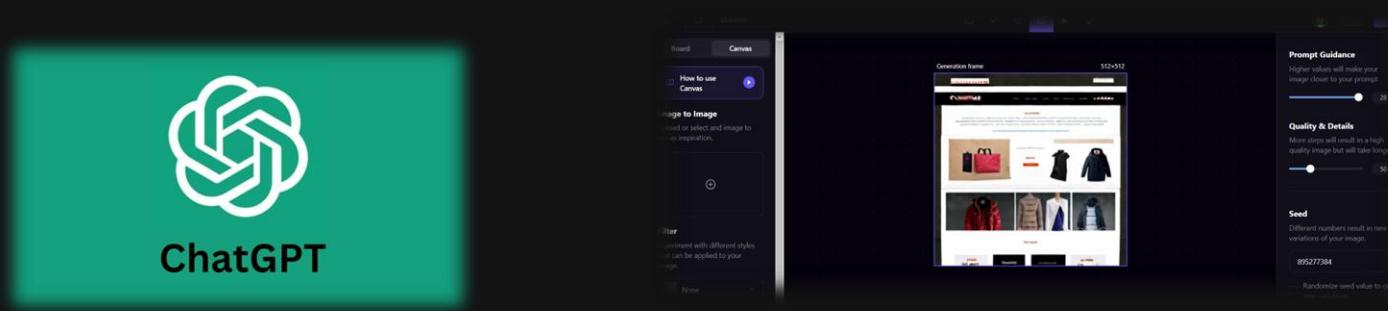


AI – Tradicional

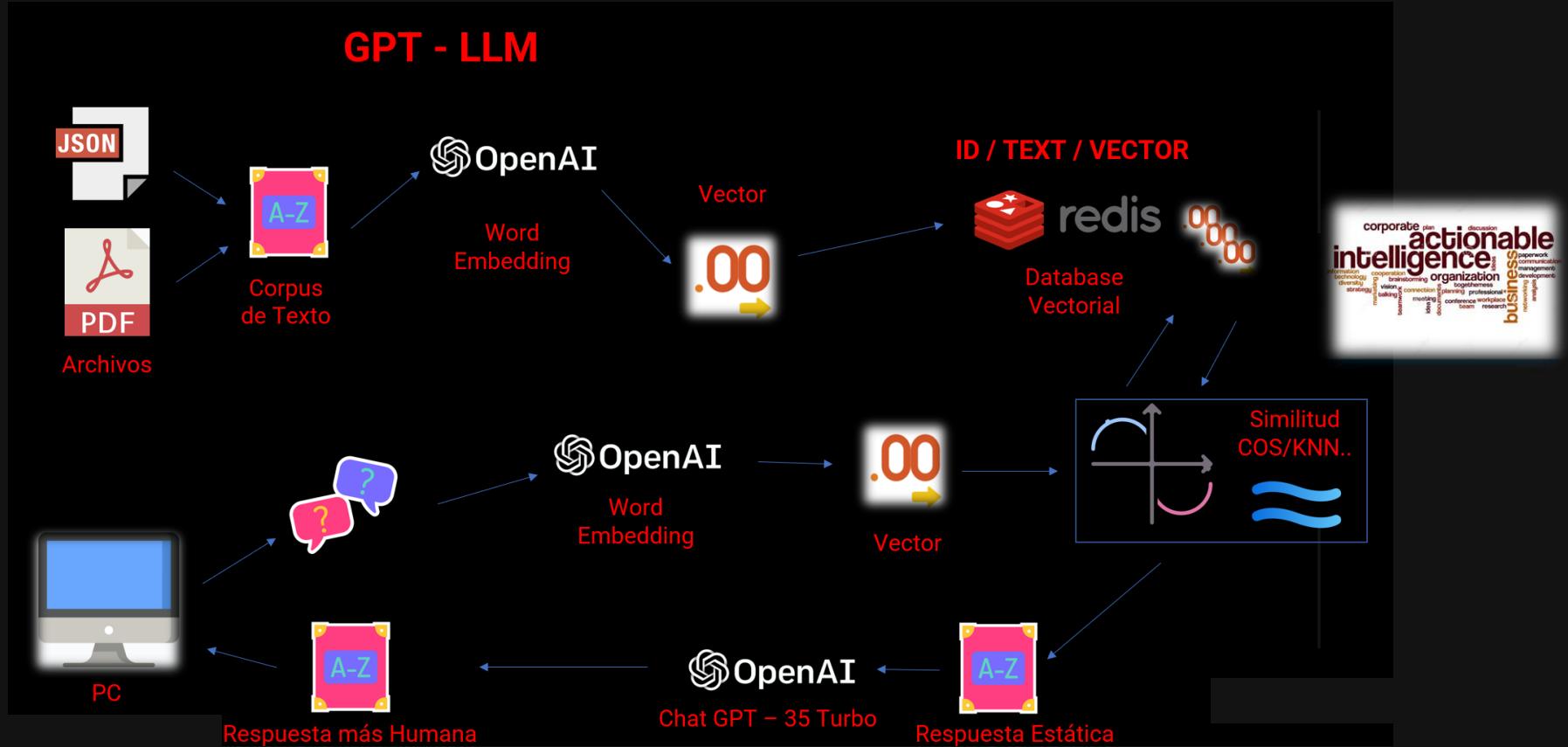


Chat GPT - OpenAI

Chatbot GPT (Generative Pre-trained Transformer) es un modelo de lenguaje basado en inteligencia artificial desarrollado por OpenAI. La serie GPT de modelos de lenguaje, incluidos GPT-2, GPT-3 y GPT-4, están diseñados para generar respuestas coherentes y contextuales en función de las entradas de texto proporcionadas. Estos modelos utilizan arquitecturas de redes neuronales llamadas "Transformers" y se entrena en grandes cantidades de datos de texto para aprender patrones y estructuras gramaticales en lenguaje natural.

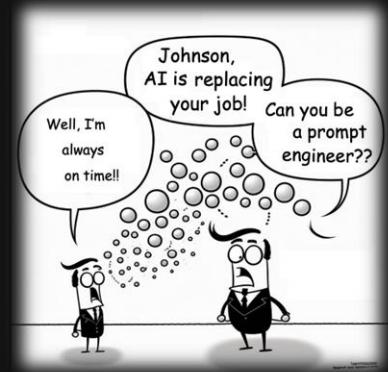
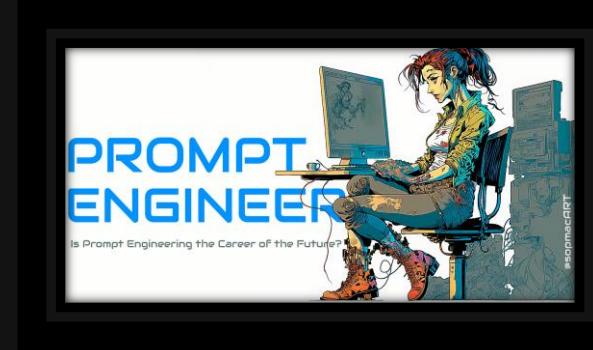


AI – Generativa



Prompt Engineering

- Prompt Engineering es un enfoque utilizado en el campo del aprendizaje automático y la inteligencia artificial (IA) para diseñar y optimizar los prompts o indicaciones que se utilizan para interactuar con un modelo de lenguaje o de generación de texto. Consiste en crear instrucciones o textos iniciales precisos y específicos que guíen al modelo para que genere la respuesta o el resultado deseado.
- El objetivo del prompt engineering es mejorar la calidad y la relevancia de las respuestas generadas por el modelo, así como influir en su comportamiento y enfoque. Al diseñar prompts efectivos, se pueden obtener resultados más precisos y coherentes, y se puede controlar la salida generada.



Prompt Engineering

Imaginemos que tienes un modelo de lenguaje generativo que actúa como un asistente virtual para recomendar películas. El objetivo es obtener recomendaciones de películas de comedia.

Enfoque inicial sin prompt profundo:
"Recomiéndame una película"

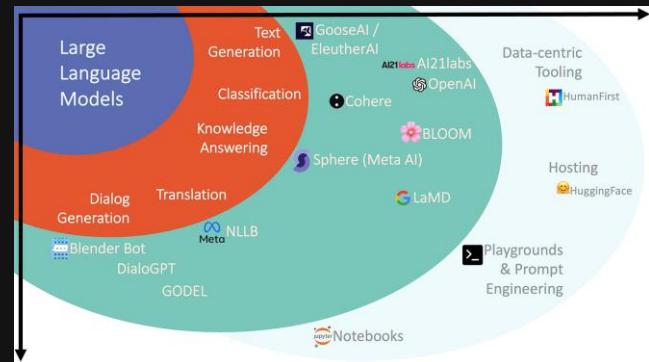
Resultado del modelo: Puede generar recomendaciones de películas de diferentes géneros, sin centrarse específicamente en la comedia.

Con prompt engineering profundo:
"Recomiéndame una película de comedia divertida lanzada en los últimos dos años"

Resultado del modelo: El modelo se enfocará en generar recomendaciones específicas de películas de comedia que sean divertidas y se hayan lanzado en los últimos dos años.

Prompt Engineering

1. Large language models: son modelos de inteligencia artificial diseñados para procesar y comprender el lenguaje humano en gran escala usando Deep Learning Transformer en grandes conjuntos de datos de texto, lo que les permite aprender patrones, estructuras gramaticales y significados contextuales del lenguaje.
2. La inteligencia artificial generativa, también conocida como IA generativa, se refiere a los sistemas de inteligencia artificial capaces de generar contenido original y nuevo. Estos sistemas utilizan modelos de aprendizaje automático para crear nuevos datos o producir resultados que no han sido vistos anteriormente en su conjunto de entrenamiento.



GPT (Generative Pre-trained Transformer)

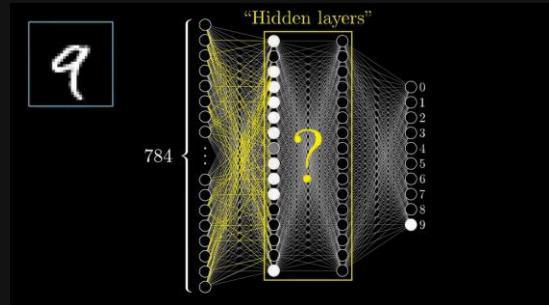
Prompt Engineering



ChatGPT

ChatGPT es un modelo de lenguaje de IA GEN. GPT-2/3.5/4, desarrollado por la empresa **OpenAI**. Es un modelo que combina hasta **1,760 Millones de parámetros**, y entrenado con enormes cantidades de texto para realizar tareas basadas en NLP con una arquitectura de Mezcla de Expertos (MoE).

Prompt Engineering



Resumen:

GPT-4, Gemini y LLaMa son modelos de lenguajes grandes (LLM) multimodales creados por OpenAI, Google y Meta respectivamente. Cada modelo está capacitado para comprender y generar texto de forma humana.





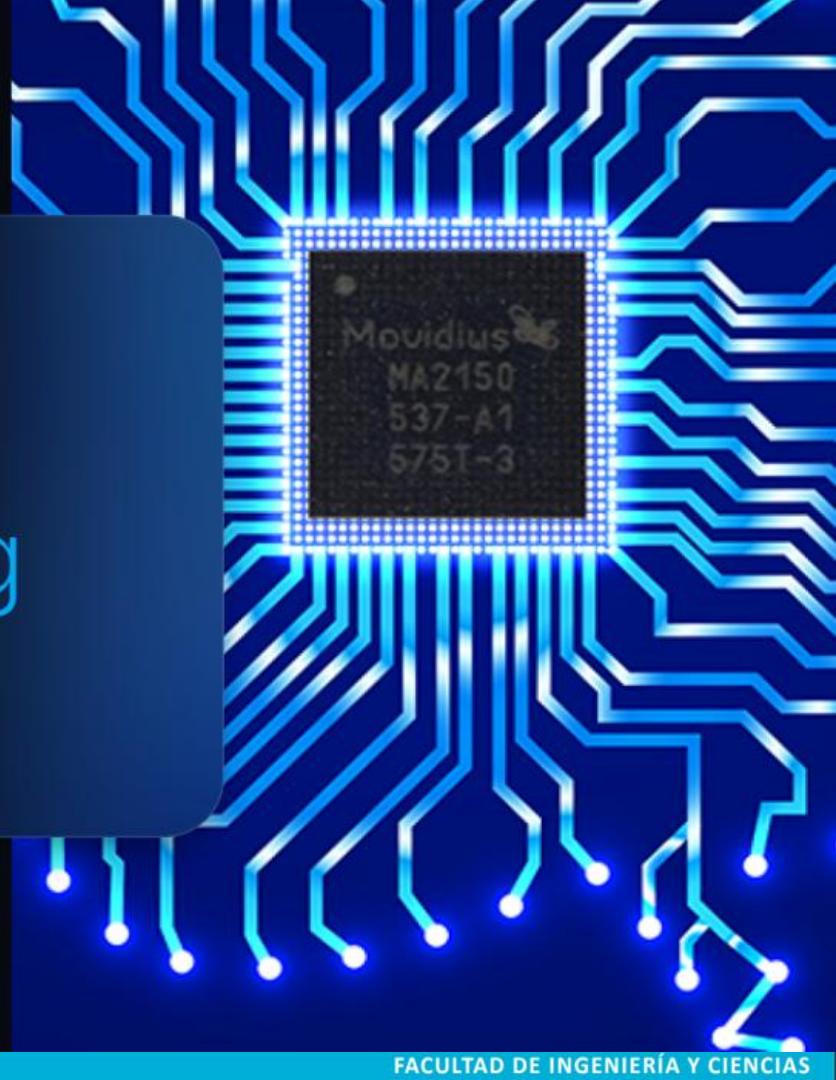
Gracias!



UAI
UNIVERSIDAD ADOLFO IBÁÑEZ

Prompt Engineering for Generative AI

2025



FACULTAD DE INGENIERÍA Y CIENCIAS