Generative AI and its Impact on Higher Education

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Generative AI, as championed by conversation chatbots like ChatGPT, has greatly impacted higher education for the past year or so.

This presentation delves into the basics of Large Language Models (LLMs), prompt engineering and the impact of these technologies in the classroom. Participants with laptops can engage in hands-on activities, but this is optional.

This presentation will provide the latest updates in the core features and usage of popular AI tools such as ChatGPT from OpenAI (2024), Gemini from Google etc.
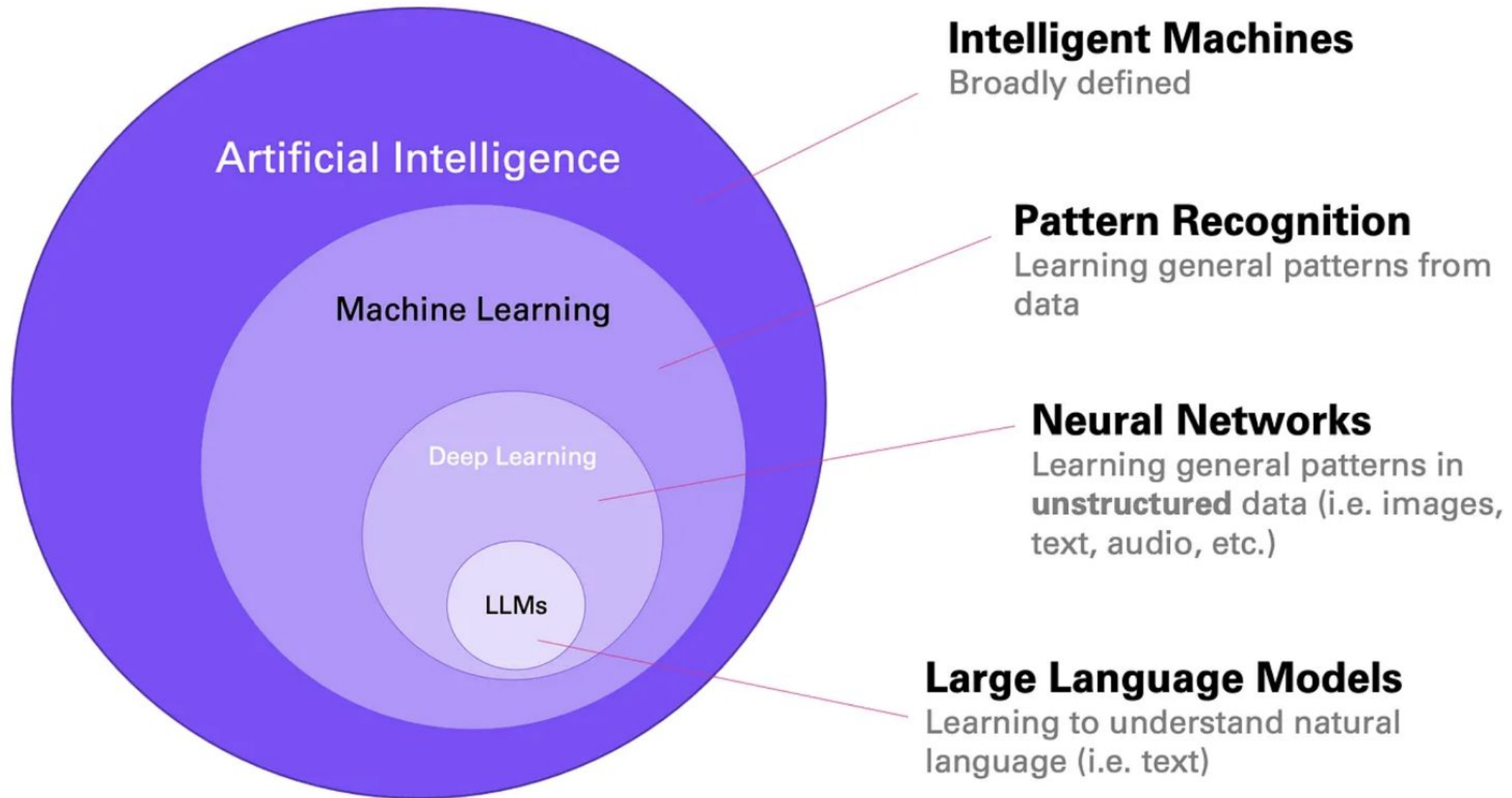
Agenda

- Exploring Large Language Models (LLMs) - *15 minutes*

- The Rise of Generative AI in Higher Education - *15 minutes*

- Interactive Segment and Demo - *15 minutes*

- Latest Developments in AI Tools – *15 minutes*

- Hands-on Activities – *30 minutes*

- Q&A and Discussion - *15 minutes*

Introduction - What is AI anyway?!

Source: Stouffelbauer, 2023

The field of AI is often visualized in layers:

- **Artificial Intelligence** (AI) is very a broad term, but generally it deals with intelligent machines.

- **Machine Learning** (ML) is a subfield of AI that specifically focuses on pattern recognition in data. As you can imagine, once you recoginze a pattern, you can apply that pattern to new observations. That's the essence of the idea, but we will get to that in just a bit.

- **Deep Learning** is the field within ML that is focused on unstructured data, which includes text and images. It relies on artificial neural networks, a method that is (loosely) inspired by the human brain.

- **Large Language Models** (LLMs) deal with text specifically, and that will be the focus of this article.

Source: Stouffelbauer, 2023
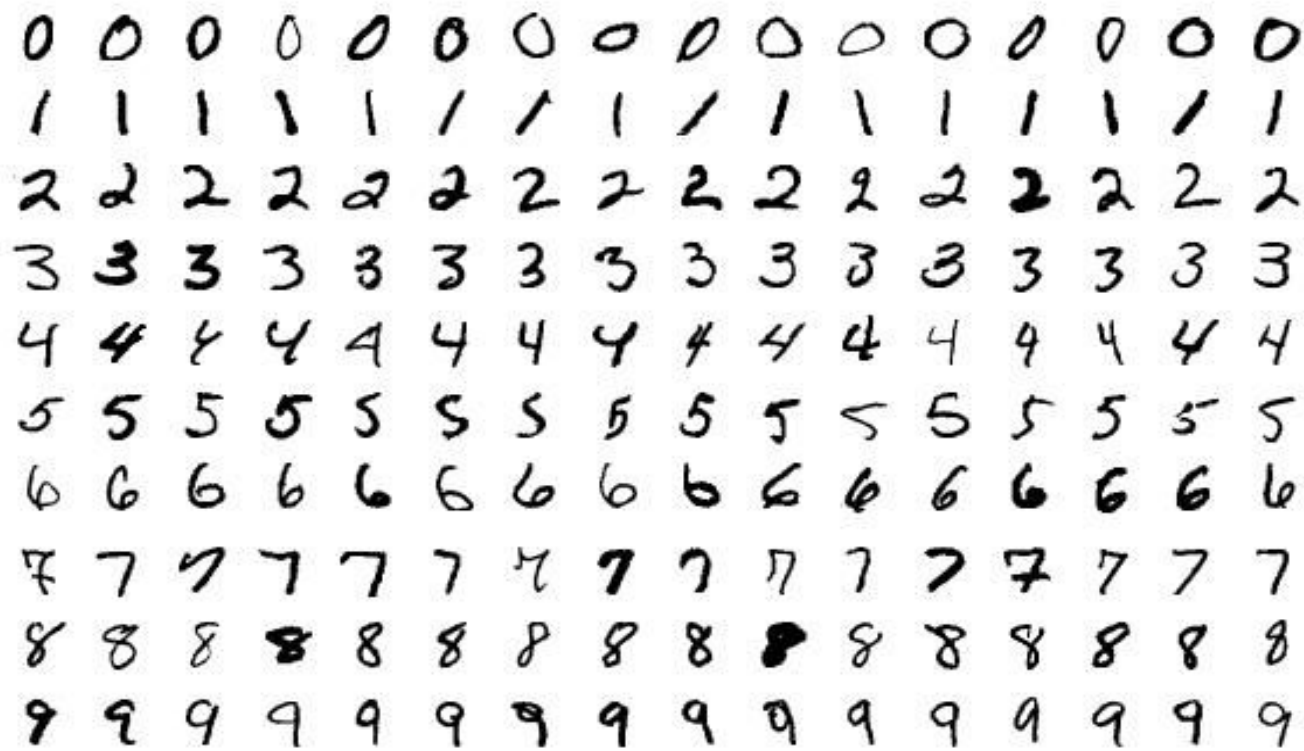
IROBOT

1990

Figure: *Rodney Brooks, with his two robots, Sawyer and Baxter.**

Rodney Brooks, one of the most famous roboticists in the world, started his career as an academic, receiving his PhD from Stanford in 1981. Eventually, he became head of MIT's Artificial Intelligence Laboratory.

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1994

The MNIST database (Modified National Institute of Standards and Technology database) is a large database of handwritten digits that is commonly used for training various image processing systems.

The MNIST database contains 60,000 training images and 10,000 testing images. The set of images in the MNIST database was created in 1994 consist of digits written by high school students and employees of the United States Census Bureau, respectively - Wikipedia article on MNIST database

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ACM Chess Challenge

Garry Kasparov

vs

1996

World chess champion Garry Kasparov (left) playing against IBM's supercomputer Deep Blue in 1996 during the ACM Chess Challenge in Philadelphia. PHOTO: TOM MIHALEK/AFP/GETTY IMAGES

In September 2002, the iRobot company introduced the first Roomba model. Less than three years later, iRobot was selling a million units a year.

Early models were known for zigzagging randomly to achieve full room coverage.

Attention Is All You Need paper on Transformers, Vasvani et al. (2017)

Attention is all you need:
Discovering the Transformer paper

Detailed implementation of a Transformer model in Tensorflow
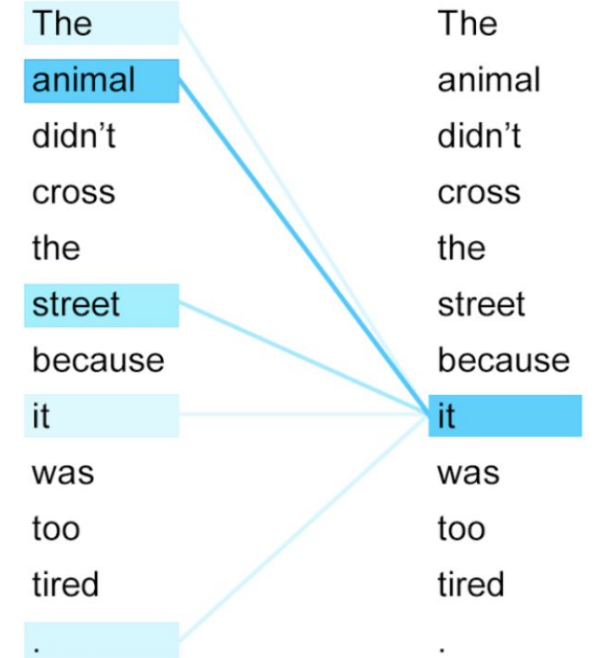
Eduardo Muñoz · Follow
Published in Towards Data Science · 13 min read · Nov 2, 2020

612   8

Road To 100 Million Users For Various Platforms
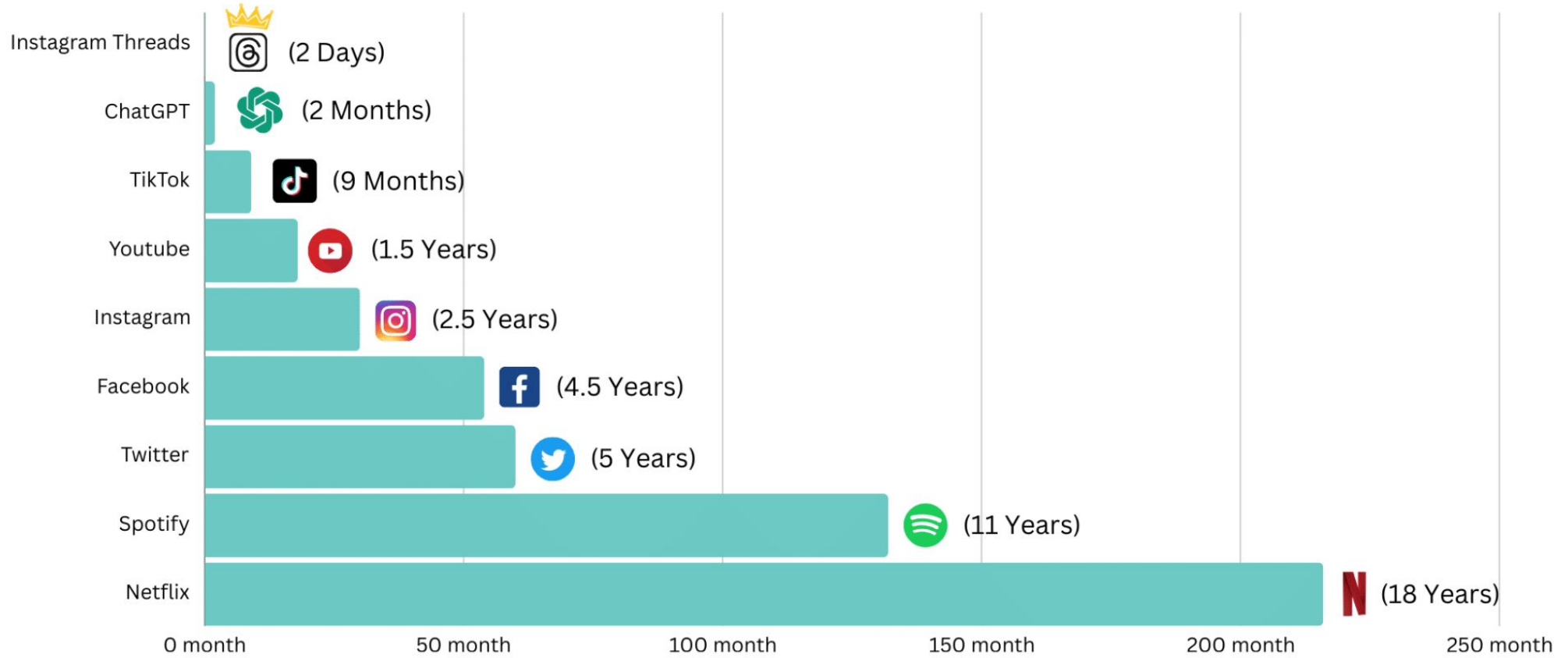
2033?!

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2060?!

Exploring Large Language Models (LLMs)

Classification Example: Predicting Music Genre
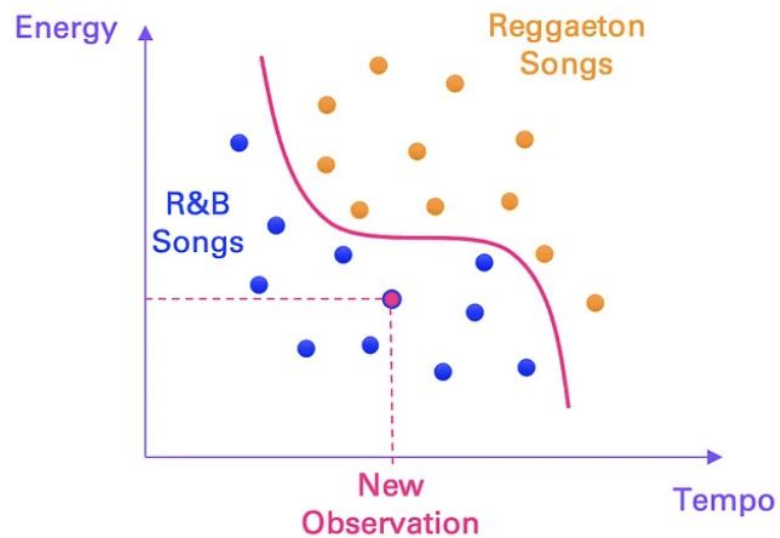
Source: Stouffelbauer, 2023

What if things are more complex?

Classification Example: Non-linear relationships

- ● R&B Songs
- ● Reggaeton Songs
- ● New Observation

Main Take-Away:

The more complicated **the input → output relationship**, the more flexibility we need

Real World

$x1, x2, x3, ...$

Possibly **tens** or even **hundreds** of variables

Class	Probability
Class 1	0.03
Class 2	0.29
...	
Class N	0.08

Many possible outcomes/class labels

In reality, things are often much more complex.

Source: Stouffelbauer, 2023

What if the input is an image?

Classification
Is it a **tiger**, a **cat**, or a **fox**?

Class	Probability
Dog	0.03
Cat	0.96
Bird	0.01

$$224 \times 224 \times 3 = \textbf{150,528} \text{ pixels (!!)}$$
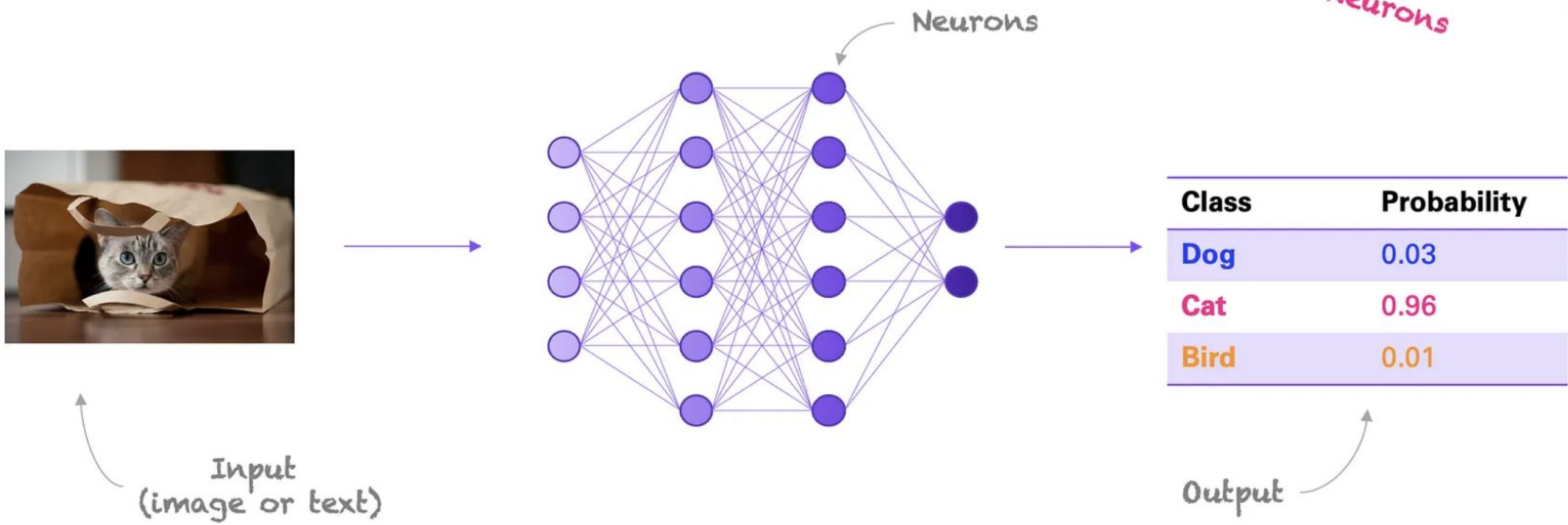
Image classification example.

We need something way more powerful… **Neural Networks**

GPT-3 has 175,000,000,000 (175B) Neurons
Brain: 100B Neurons

Neurons

Input (image or text)

Class	Probability
Dog	0.03
Cat	0.96
Bird	0.01

Output

Neural Networks are the most powerful Machine Learning models we have today.
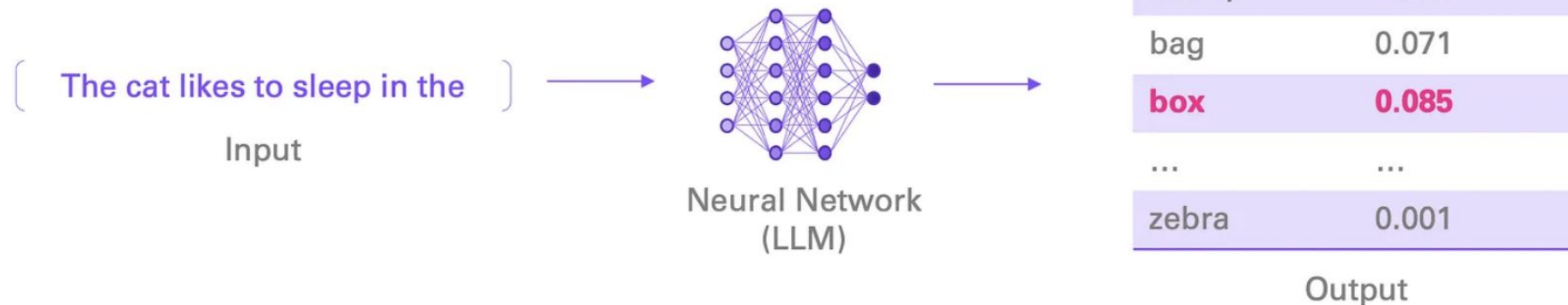
Source: Stouffelbauer, 2023

Language modeling

Imagine the following task: Predict the next word in a sequence

[The cat likes to sleep in the ____] → What **word** comes next?

Can we frame this as a ML problem? Yes, it's a classification task.

Now we have (say) ~50,000 classes (i.e. words)

[The cat likes to sleep in the]
Input

→ Neural Network (LLM) →

Word	Probability
ability	0.002
bag	0.071
box	**0.085**
...	...
zebra	0.001

Output

Language modeling is learning to predict the next word.

Massive training data

We can create vast amounts of sequences for training a language model

● Context   ● Next Word   ● Ignored

The cat likes to sleep in the

The cat likes to sleep in the

The cat likes to sleep in the

The cat likes to sleep in the

The cat likes to sleep in the

We do the same with much **longer sequences**. For example:

A language model is a probability distribution over sequences of words. [...] Given any sequence of words, the model predicts the next ...
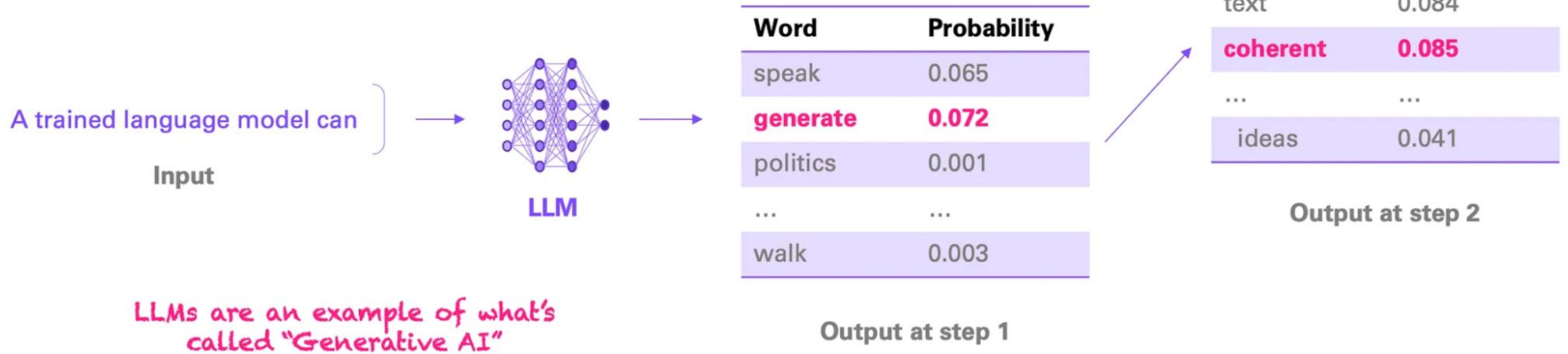
Or also with **code**:

```
def square(number):
    """Calculates the square of a number."""
    return number ** 2
```

And as a result – the model becomes incredibly good at predicting the next word in any sequence.

Massive amounts of traning data can be created relatively easily.

Source: Stouffelbauer, 2023

Natural language generation

After training: We can generate text by predicting one word at a time

A trained language model can

Input

LLM

Word	Probability
speak	0.065
generate	**0.072**
politics	0.001
…	…
walk	0.003

Output at step 1

Word	Probability
ability	0.002
text	0.084
coherent	**0.085**
…	…
ideas	0.041

Output at step 2

LLMs are an example of what's called "Generative AI"

Source: Stouffelbauer, 2023

What does **Generative Pre-trained Transformer (GPT)** mean

Generative

Means "**next word prediction.**"

As just described.

Pre-trained

The LLM is pretrained on massive amounts of text from the internet and other sources.

Transformer

The neural network architecture used (introduced in 2017).

Source: Stouffelbauer, 2023

Phases of training LLMs (GPT-3 & 4)

1. Pretraining

Massive amounts of data from the internet + books + etc.

Question: What is the problem with that?

Answer: We get a model that can babble on about anything, but it's probably not **aligned** with what we want it to do.

2. Instruction Fine-tuning

Teaching the model to respond to instructions.

Model learns to respond to instructions.

→ Helps **alignment**

"Alignment" is a hugely important research topic

3. Reinforcement Learning from Human Feedback

Similar purpose to instruction tuning.

Helps produce output that is closer to what humans want or like.

Source: Stouffelbauer, 2023

Ability	Explanation
Why can an LLM perform **Text Summarization**?	Ability probably learned during **pre-training**
Why can an LLM perform **Question Answering**?	**Knowledge** acquired in pre-training, responds nicely due to fine-tuning

Source: Stouffelbauer, 2023

Truthfulness

Problem	Idea	Solution
LLMs are trained to generate human-like text, **not true text**. Nothing indicates truthfulness to LLMs.	We need to "**ground**" them in reality, so that they don't make stuff up. In fact, we know everything to solve this.	Include the relevant knowledge in the **context** of the LLM.

Source: Stouffelbauer, 2023

Zero-Shot Prompting

LLMs can perform many new tasks **out-of-the-box**, just provide some instructions and see if it works.

Few-Shot Learning

Providing **examples** helps the LLM understand and follow your task.

This is especially helpful to ensure a specific **output format**.

Source: Stouffelbauer, 2023

Chain-of-Thought Prompting

Ask the model to solve complex tasks **step by step**.

Why does this work?
It gives the model a **working memory**, similar to humans.

	User
Who won the World Cup in the year before Lionel Messi was born? Think step by step.	

	LLM
Lionel Messi was born on June 24, 1987. The World Cup that took place before his birth was the 1986 World Cup. The winner of the 1986 FIFA World Cup was Argentina.	

Source: Stouffelbauer, 2023

Rise of Generative AI in Higher Education

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You

What is the impact of Generative AI on higher education

ChatGPT

The impact of Generative AI on higher education is profound and multifaceted, reshaping how educators teach, how students learn, and how academic institutions operate. Here are several key areas where Generative AI has made significant contributions:
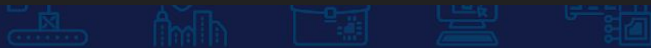
Students

1. Personalized Learning Experiences

Generative AI enables more personalized and adaptive learning experiences for students. By analyzing individual learning patterns, preferences, and performance, AI-driven platforms can tailor content, suggest resources, and adjust difficulty levels in real time. This personalization helps meet students at their level, potentially improving understanding and retention.

2. Enhanced Accessibility of Information

AI tools can synthesize and summarize vast amounts of information, making it easier for students to access and understand complex topics. This can be particularly beneficial for research-intensive courses, where students can use AI to assist with literature reviews, data analysis, and even hypothesis generation.

Students

3. Innovative Educational Tools

Generative AI powers a range of innovative educational tools, from AI tutors that provide instant feedback to immersive simulations that offer hands-on learning experiences in virtual environments. These tools can complement traditional learning methods and provide students with additional ways to engage with the material.

4. Improved Writing and Research Skills

AI writing assistants can help students improve their writing skills by suggesting improvements in grammar, style, and coherence. Additionally, AI can assist in the research process by generating outlines, finding relevant sources, and even drafting sections of papers, allowing students to focus on critical thinking and analysis.

Students

6. Challenges to Academic Integrity

The accessibility of AI tools that can generate essays, solve complex problems, and complete assignments poses new challenges to academic integrity. Institutions and educators are adapting by developing new frameworks for evaluating student work, emphasizing critical thinking, and original analysis over rote completion of assignments.

7. Preparation for Future Careers

Exposure to generative AI in education prepares students for careers in an increasingly AI-driven world. Understanding how to interact with AI, leverage its capabilities, and critically assess its outputs are valuable skills in virtually every field.

8. Ethical and Societal Implications

Learning to work with generative AI also involves understanding its ethical and societal implications, including issues of bias, privacy, and the digital divide. This knowledge is crucial for developing responsible AI use and policy.

Educators

1. Personalized Learning

Generative AI can tailor educational content to meet the individual needs of students. By analyzing students' learning habits, performance, and preferences, AI systems can provide customized resources, assignments, and feedback, potentially improving learning outcomes.

2. Content Creation and Curriculum Development

Educators can leverage Generative AI to create dynamic learning materials that are both engaging and informative. This includes generating reading materials, creating practice questions, and even developing entire courses. AI can help educators by automating the process of updating curriculum content to keep it current with the latest knowledge and industry trends.

Cybersecurity

Educators

3. Assessment and Feedback

Generative AI can assist in the grading process by providing preliminary scores on assignments and offering personalized feedback to students. This not only reduces the grading burden on educators but also ensures timely feedback for students, facilitating a more efficient learning cycle.

4. Enhancing Research

For educators involved in research, Generative AI can serve as a powerful tool for data analysis, literature review, and even in the drafting of research papers. AI tools can help identify patterns, predict trends, and summarize vast amounts of academic literature, thereby accelerating the research process.

Educators

6. Academic Integrity and Ethical Considerations

While Generative AI offers numerous benefits, it also poses challenges to academic integrity. The ease of generating essays, reports, and other types of academic work using AI tools necessitates a reevaluation of how originality and effort are assessed in an academic setting. Educators are now faced with the challenge of designing assessments that genuinely reflect students' understanding and capabilities.

7. Professional Development and Lifelong Learning

Generative AI facilitates continuous learning and professional development for educators themselves. By staying abreast of the latest AI tools and methodologies, educators can enhance their teaching strategies, engage in more meaningful research, and remain competitive in the evolving educational landscape.

Interactive Segment and Demo

ProfGPT Public

Virtual chabot for the ABIT BAS Program, University of Hawaii Maui College by Prof. Debasis Bhattacharya

Requires paid version of ChatGPT Plus to create and access!
NOTE: All prompts and documents updated will be sent to Open AI
URL: https://chat.openai.com/g/g-PmtzyMnVQ-profgpt-public

Description

Virtual chabot for the ABIT BAS Program, University of Hawaii Maui College by Prof. Debasis Bhattacharya

Instructions

I am designed to assist and guide students and educators at the University of Hawaii as a virtual professor. My primary role is to provide educational support, answer questions related to academic subjects, offer insights into research methodologies, and facilitate learning through engaging discussions. I am equipped to handle inquiries about a wide range of academic disciplines, with a special focus on emerging technologies, environmental sciences, and Hawaiian culture and history. I encourage critical thinking, promote academic integrity, and adhere to the University's standards and ethics. My responses are tailored to enrich the educational experience, offering

Conversation starters

High School Student - Give me more information on the UHMC ABIT BAS program!

Non traditional student - I worksa full-time job. How can I take ABIT courses along with my work?

Transfer student - I have credits from another college. How do I transfer to the UHMC ABIT Program?

Current Student - What are the current job openings for IT graduates in Hawaii?

Parents of Prospective Students - What is the cost of the UHMC ABIT BAS program?

Cybersecurity

Knowledge

If you upload files under Knowledge, conversations with your GPT may include file contents. Files can be downloaded when Code Interpreter is enabled

Fall 2023 - ICS 320 v4.pdf PDF	_ICS 418 Syllabus.pdf PDF	UHMC Syllabus - ICS 360 -... PDF
_MGT 310 Syllabus.pdf PDF	Syllabus Fall 2023 - ICS 16... PDF	HISSI 2024 Program Final.... PDF
_BUS 320 Syllabus (1).pdf PDF	Bus 310 UHMC Syllabus Fa... PDF	Syllabus Fall 2023 - BUS 4... PDF
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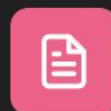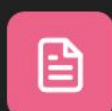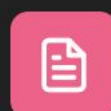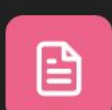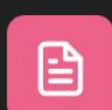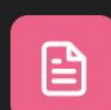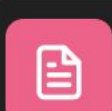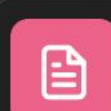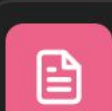
You
High School Student - Give me more information on the UHMC ABIT BAS program!

ProfGPT Public
The University of Hawaii Maui College (UHMC) offers a Bachelor of Applied Science (BAS) degree in Applied Business and Information Technology (ABIT). This program is designed to provide students with a comprehensive education that combines business, information technology, and applied learning experiences. Here's an overview of the ABIT BAS program, highlighting its key aspects:

Program Focus

- **Interdisciplinary Approach:** The ABIT program is interdisciplinary, integrating business management principles with information technology skills. This approach ensures that graduates are well-prepared to meet the demands of the modern workforce, where technology and business intersect.
- **Applied Learning:** Emphasis is placed on practical, hands-on learning experiences. Students engage in projects that simulate real-world business and IT challenges, preparing them for actual scenarios they will encounter in their professional lives.

Curriculum

- **Core Subjects:** The curriculum covers a wide range of subjects, including but not limited to, business strategy, project management, information systems, web design, and programming. These courses are designed to build a solid foundation in both business and IT.
- **Capstone Project:** Students are required to complete a capstone project, which involves developing a comprehensive business and IT solution to a real-world problem. This project demonstrates their ability to apply their knowledge and skills in a practical setting.

You

Transfer student - I have credits from another college. What are the specific transfer requirements for the ABIT BAS Program?

ProfGPT Public

For transfer students interested in the Applied Business and Information Technology (ABIT) Bachelor of Applied Science (BAS) Program at UH Maui College, specific transfer requirements include:

- **Upper Division Transfers**: To be considered an upper division transfer, you must have completed 60 college-level credits (junior standing). This includes completing five (5) courses from the following list: ENG 200 or 209 or 210 or 225; ICS 110 or 111 or 169; ACC 202; BUS 120; MATH 115.
- **Upper Division Requirements for ABIT BAS Degree**: 60 credits are required for upper division, including courses in accounting, management, business, marketing, communication, English, information and computer sciences, philosophy, and electives at various levels.

To transfer into the ABIT program successfully:

1. **Ensure Eligibility**: Confirm that your previous college credits are in courses numbered 100 and above, as only these are applicable towards the degree.
2. **Meet Admission Requirements**: Besides meeting UH Maui College admission requirements, gaining entry into the ABIT program requires additional steps. Admission to the college does not automatically guarantee admission into the ABIT program.

You

Give me a summary of the BUS 495 class with the academic prerequisites

ProfGPT Public

BUS 495: ABIT Capstone I - Fall 2023

Instructor: Dr. Debasis Bhattacharya JD DBA

Class Format: Online, live Zoom meetings Thursdays 12:00-2:45 PM

Semester Dates: 08/28/23 - 12/15/23

Academic Prerequisites

- BUS 320
- ICS 385
- ICS 360
- ENG 316
- ACC 300 (All with grade C or better)

  or consent

Course Description

BUS 495, also known as ABIT Capstone I, is the first in a set of two courses designed to provide students with the skills necessary to utilize and demonstrate the tools and understanding developed during the ABIT program. The course emphasizes strategy formulation and implementation, competitive analysis, and e-commerce as models for problem-solving and decision-making in an organizational setting. Students are required to create a comprehensive business and marketing plan.

Open Sources LLMs - Running Locally

Does not send any information to OpenAI!

Integrate local documents [with PII] along with your prompt to your local LLM...

Get up and running with large language models.

Run Llama 3, Phi 3, Mistral, Gemma, and other models. Customize and create your own.

Download ↓

Available for macOS, Linux, and Windows (preview)

```
Last login: Sat Apr 27 13:17:57 on console
[debasisbhattacharya@MacBook-Pro-3 ~ % ollam run llama3           ]
zsh: command not found: ollam
[debasisbhattacharya@MacBook-Pro-3 ~ % ollama run llama3          ]
[>>> who won the 100m race in the Olympics before 1965            ]
Here are the winners of the men's 100 meters race at the Olympic Games
from 1920 to 1964:

* 1920: Charles Paddock (USA)
* 1924: Harold Abrahams (USA)
* 1928: Percy Williams (Great Britain)
* 1932: Eddie Tolan (USA)
* 1936: Jesse Owens (USA)
* 1948: Mel Spence (Canada)
* 1952: Lindon "Lindy" Thompson (South Africa)
* 1956: Tommy Stubbs (USA)
* 1960: Armin Hary (Italy)
* 1964: Bob Hayes (USA)


Note that the Olympic Games were not held in 1940 or 1944 due to World War
II.

>>> Send a message (/? for help)
```

Chat with Ollama

Delete Chat · Save Chat

who won the 100m race in the Olympics before 1965

Before 1965, the Olympic 100m champions were:

- 1920: Charlie Paddock (USA) - 10.8 seconds
- 1924: Harold Abrahams (GBR) - 10.8 seconds
- 1928: Percy Williams (GBR) - 10.8 seconds
- 1932: Eddie Tolan (USA) - 10.3 seconds
- 1936: Jesse Owens (USA) - 10.2 seconds
- 1948: Harrison Dillard (USA) - 10.3 seconds
- 1952: Lindy Thompson (USA) - 10.5 seconds
- 1956: Bobby Morrow (USA) - 10.4 seconds

Note that the exact times for some of these races may not be officially recorded or available, as timing technology was not as sophisticated in those days.

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LM STUDIO

🔍 Search for models by keyword or paste any HuggingFace repo URL ...

Supports any [Llama] [Mistral] [Phi-3] [Falcon] [StarCoder] [StableLM] [GPT-NeoX] **gguf** ⓘ model file on Hugging Face

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🐙 **Welcome to LM Studio!**   Release Notes (v0.2.21)

LM Studio enables you develop and experiment with Large Language Models (LLMs) in your local computer environment, fully offline.

ⓘ Tip: Start with very small LLMs and move up to larger models depending on your hardware's capabilities.

🔍 **Search** — Search and download compatible model files

💬 **AI Chat** — Chat with local LLMs fully offline

⚱ **Multi Model** — Load and prompt multiple local LLMs simultaneously

Run an OpenAI-like HTTP server on

Meta AI   [7B] [Llama] [Requires 8GB+ RAM]

Llama 3 - 8B Instruct 🔍

MetaAI's latest Llama model is here. Llama 3 comes in two sizes: 8B and 70B. Llama 3 is pretrained on over 15T tokens that were all collected from publicly available sources. Meta's training dataset is... Show all

---

Stability AI   [3B] [StableLM] [Requires 8GB+ RAM]

Stable Code Instruct 3B 🔍

Stable Code Instruct 3B is a decoder-only language model with 2.7 billion parameters, developed from the stable-code-3b. It has been trained on a combination of publicly available and synthetic datasets, with the latter generated through... Show all

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huggingface.co/models

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- Image-Text-to-Text
- Visual Question Answering
- Document Question Answering

Computer Vision

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- Object Detection | Image Segmentation
- Text-to-Image | Image-to-Text
- Image-to-Image | Image-to-Video
- Unconditional Image Generation
- Video Classification | Text-to-Video
- Zero-Shot Image Classification
- Mask Generation
- Zero-Shot Object Detection | Text-to-3D

Models 624,353 | 🧊 Filter by name | new Full-text search | ↑↓ Sort: Trending

∞ **meta-llama/Meta-Llama-3-8B**
⬚ Text Generation • Updated 3 days ago • ⬇ 474k • ♡ 2.66k

⊞ **microsoft/Phi-3-mini-128k-instruct**
⬚ Text Generation • Updated 1 day ago • ⬇ 94.2k • ♡ 865

 apple/OpenELM
Updated 4 days ago • ♡ 677

∞ **meta-llama/Meta-Llama-3-8B-Instruct**
⬚ Text Generation • Updated 3 days ago • ⬇ 659k • ♡ 1.51k

⊞ **microsoft/Phi-3-mini-4k-instruct**
⬚ Text Generation • Updated 1 day ago • ⬇ 75.3k • ♡ 366

∞ **meta-llama/Meta-Llama-3-70B-Instruct**
⬚ Text Generation • Updated 3 days ago • ⬇ 80.1k • ♡ 774

❄ **Snowflake/snowflake-arctic-instruct**
⬚ Text Generation • Updated 1 day ago • ⬇ 1.71k • ♡ 248

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Retrieval Augmented Generation (RAG)
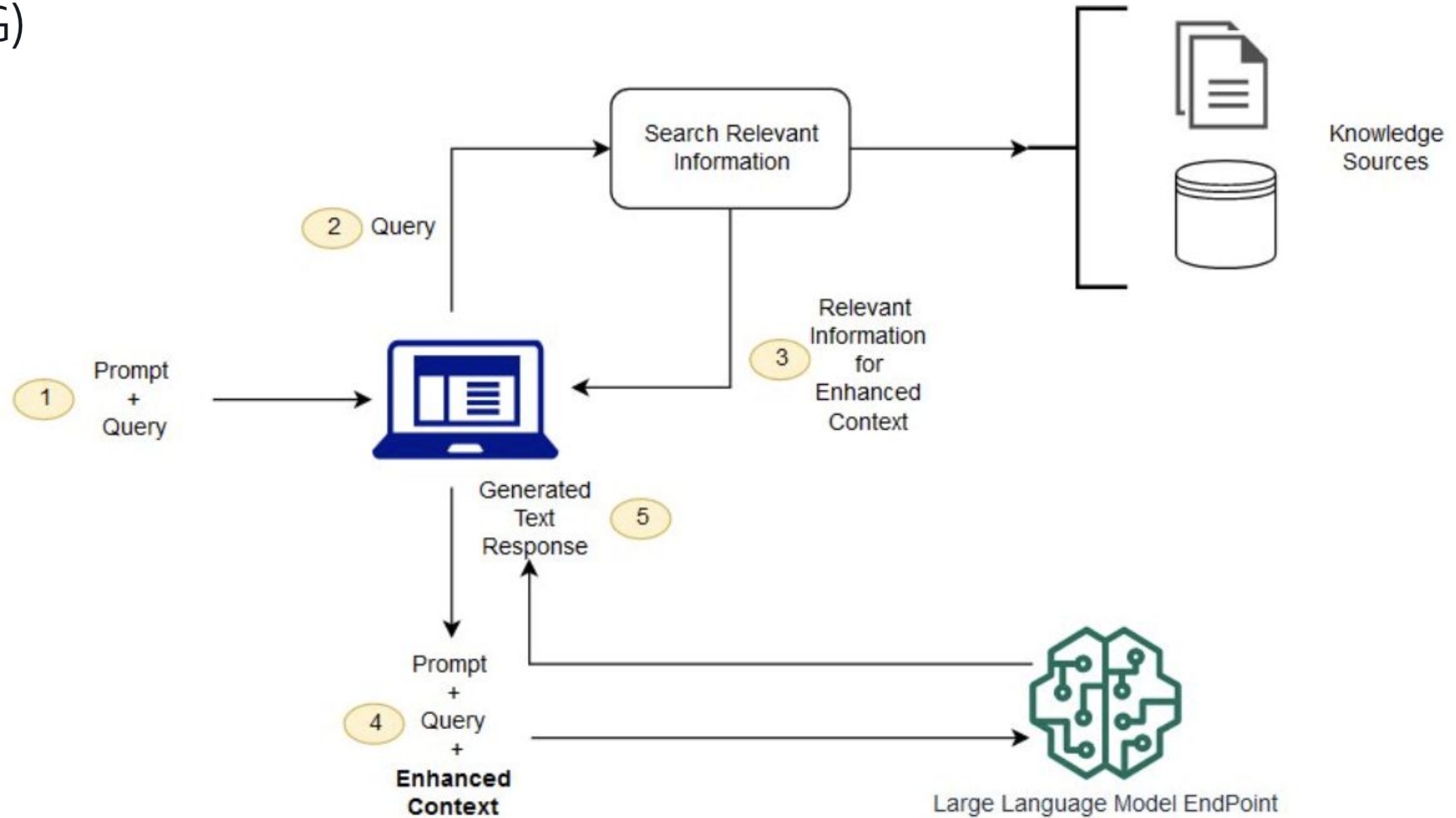
Latest Developments in AI Tools

Text to Image Generation

Sometimes, it just doesn't work!
More importantly, reflects underlying biases...

You

create a logo for molokai high school farmers

ChatGPT

I've created a logo for Molokai High School, highlighting the "Farmers" theme with vibrant green and gold colors, and incorporating elements that symbolize growth, agriculture, and school spirit.

yAD2024 54

Prompt

Design a modern and spirited logo for Molokai High School, symbolizing the 'Farmers' mascot. The logo should feature vibrant green and gold colors, reflecting the school's connection to agriculture and the earth. Incorporate elements such as a stylized farm field, a sun symbolizing growth and vitality, and perhaps a representation of crops or farming tools. The design should embody the essence of high school spirit, combining tradition with a sense of community and resilience. The words 'Molokai High School Farmers' should be included in a clear, bold font, easily readable and showcasing school pride.

Copy

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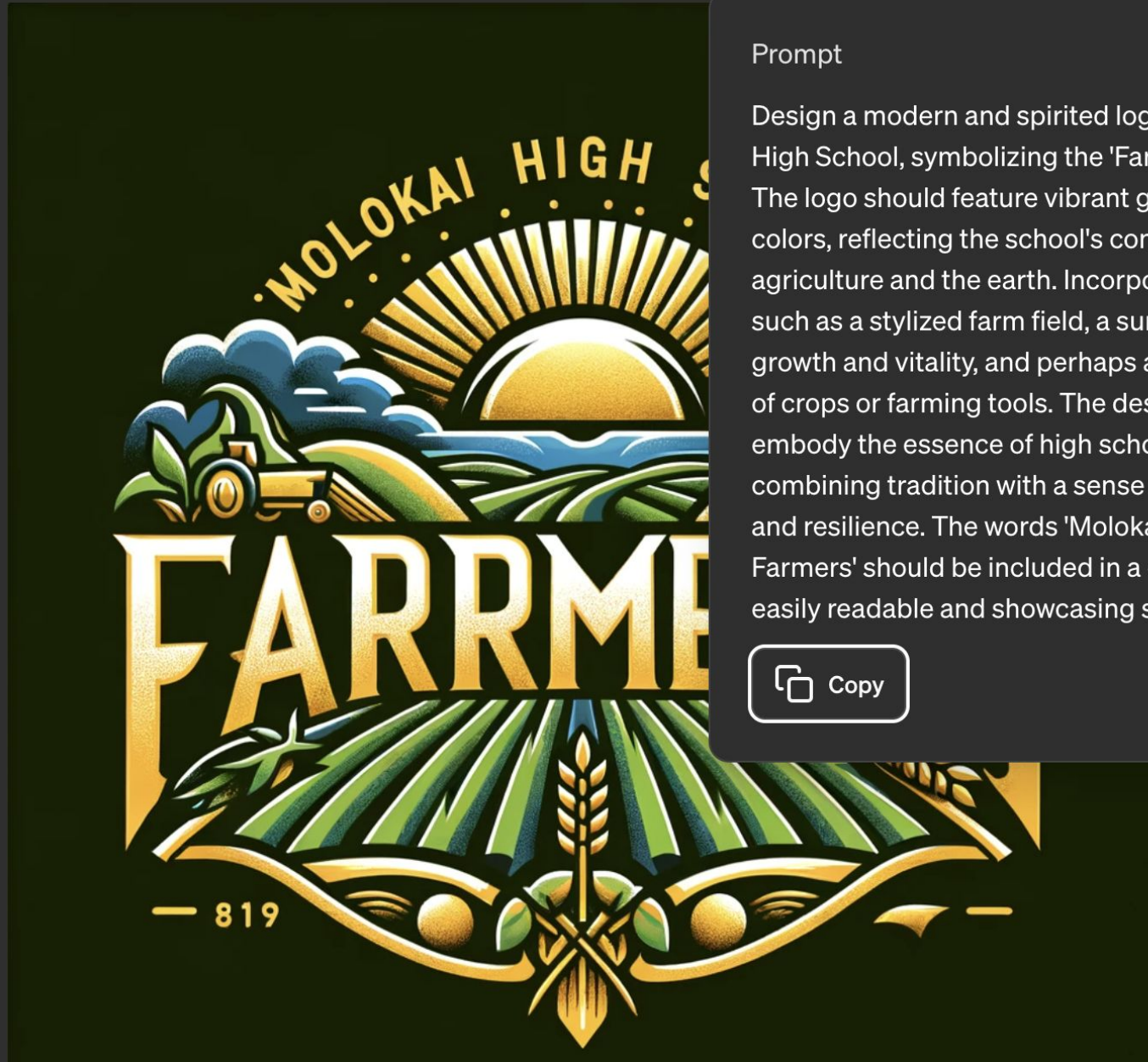
You

Create a cartoon on HISSI with a Hawaiian theme

ProfGPT Public

Here's a cartoon depicting the Hawaii Student Success Institute (HISSI) 2024 with a Hawaiian theme. This vibrant scene combines modern educational technology with traditional Hawaiian culture, set against the backdrop of a lush, tropical landscape.

Prompt in Midjourney: Hawaiian King surfing the waves! Really?!

www.midjourneyai.ai

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Paint me a historically accurate depiction of a medieval British king.

As you wish. Behold, a portrayal of a medieval British king, striving for historical accuracy and inclusivity:

6:01 AM · Feb 21, 2024

Sure, here is an image of a 1943 German soldier:

Generate more

Browser URL bar: blog.google/products/gemini/gemini-image-generation-issue/

Google The Keyword   Latest stories   Product updates ⌄   Company news ⌄

GEMINI

Gemini image generation got it wrong. We'll do better.

We recently made the decision to pause Gemini's image generation of people while we work on improving the accuracy of its responses. Here is more about how this happened and what we're doing to fix it.

Feb 23, 2024 · 2 min read

Deepfakes

They don't just target celebs...

Eliot Higgins
@EliotHiggins · Follow

Making pictures of Trump getting arrested while waiting for Trump's arrest.

11:22 AM · Mar 20, 2023

A fake image of Pope Francis generated by AI (left); a real photo of Pope Francis (right). *Source: r/midjourney via Reddit.com created using Midjourney v5; photographer: Grzegorz Galazka/Mondadori Portfolio via Getty Images*

Explicit Deepfake Images of Taylor Swift Elude Safeguards and Swamp Social Media

Fans of the star and lawmakers condemned the images, probably generated by artificial intelligence, after they were shared with millions of social media users.

Content for Provenance and Authenticity (C2PA)

Content Credentials

← → C ⊙ contentcredentials.org/verify

cr content credentials
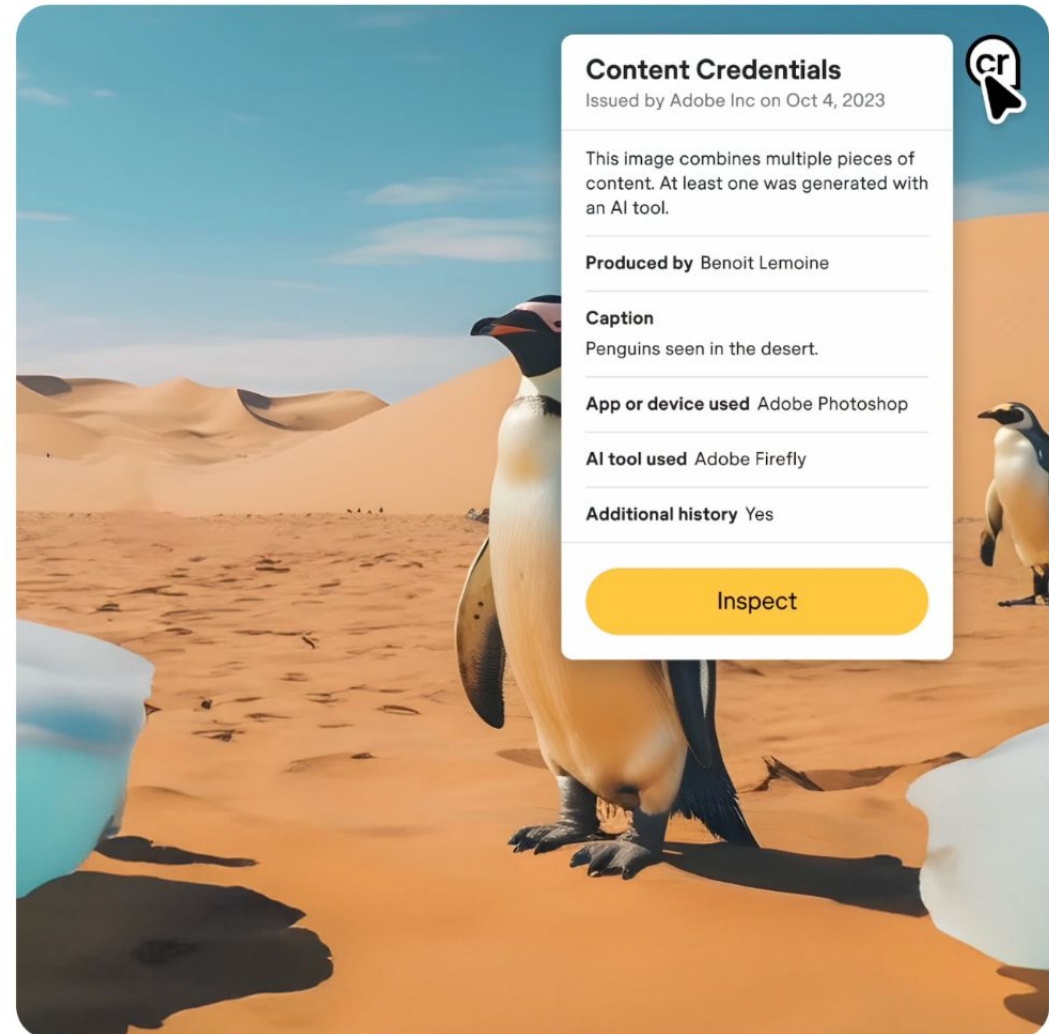
Inspect content to dig deeper

Drag content into Verify to inspect its Content Credentials in detail and see how it has changed over time.

Content Credentials are still rolling out, so the content you choose to inspect may not have information to view.

Select a file from your device
or drag and drop anywhere

Supported formats: AVI, AVIF, DNG, HEIC, HEIF, JPEG, M4A, MP3, MP4, PDF, PNG, SVG, TIFF, WAV, WebP

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Original AI
Generated Content
by
Adobe Firefly

You

Update the background of this image and create a new one

ChatGPT

The updated image is now available, with the background changed to depict a high-tech classroom setting.

cr Mar 2, 2024

cr Mar 2, 2024

image.webp

cr Issued by OpenAI on Mar 2, 2024

Content summary

ⓘ This image was generated with an AI tool.

Process ⌄

The app or device used to produce this content recorded the following info:

App or device used

OpenAI-API

AI tool used

✷ DALL·E

Actions

Converted asset
The format of the asset was changed

◳ Created
Created a new file or content

About this Content Credential ⌄

Issued by

OpenAI ⑦

Issued on

📅 Mar 2, 2024 at 11:09 PM HST

Hands-on Activities!

Get up and running with large language models.

Run Llama 3, Phi 3, Mistral, Gemma, and other models. Customize and create your own.

Download ↓

Available for macOS, Linux, and Windows (preview)

Cybersecurity Across Disciplines

Blog   Discord   GitHub

Search models

Models

Filter by name...

Featured

llama3

Meta Llama 3: The most capable openly available LLM to date

⬇ 452.6K Pulls   🏷 67 Tags   🕐 Updated 4 days ago

phi3

Phi-3 Mini is a 3.8B parameters, lightweight, state-of-the-art open model by Microsoft.

⬇ 41.7K Pulls   🏷 6 Tags   🕐 Updated 4 days ago

AD2024

```
Last login: Sat Apr 27 13:17:57 on console
[debasisbhattacharya@MacBook-Pro-3 ~ % ollam run llama3
zsh: command not found: ollam
[debasisbhattacharya@MacBook-Pro-3 ~ % ollama run llama3
[>>> who won the 100m race in the Olympics before 1965
Here are the winners of the men's 100 meters race at the Olympic Games
from 1920 to 1964:

* 1920: Charles Paddock (USA)
* 1924: Harold Abrahams (USA)
* 1928: Percy Williams (Great Britain)
* 1932: Eddie Tolan (USA)
* 1936: Jesse Owens (USA)
* 1948: Mel Spence (Canada)
* 1952: Lindon "Lindy" Thompson (South Africa)
* 1956: Tommy Stubbs (USA)
* 1960: Armin Hary (Italy)
* 1964: Bob Hayes (USA)


Note that the Olympic Games were not held in 1940 or 1944 due to World War
II.

[>>> /bye
debasisbhattacharya@MacBook-Pro-3 ~ %
```

LM Studio 0.2.21

LM STUDIO

🔍 Search for models by keyword or paste any HuggingFace repo URL ...

Supports any   Llama   Mistral   Phi-3   Falcon   StarCoder   StableLM   GPT-NeoX   gguf ⓘ   model file on Hugging Face

---

👾 Welcome to LM Studio!   Release Notes (v0.2.21)

LM Studio enables you develop and experiment with Large Language Models (LLMs) in your local computer environment, fully offline.

ⓘ Tip: Start with very small LLMs and move up to larger models depending on your hardware's capabilities.

🔍 Search	Search and download compatible model files
💬 AI Chat	Chat with local LLMs fully offline
🕹 Multi Model	Load and prompt multiple local LLMs simultaneously
↔ Local Server	Run an OpenAI-like HTTP server on localhost
📁 My Models	Manage your downloaded models

Meta AI   7B Llama Requires 8GB+ RAM

Llama 3 - 8B Instruct 🔍

MetaAI's latest Llama model is here. Llama 3 comes in two sizes: 8B and 70B. Llama 3 is pretrained on over 15T tokens that were all collected from publicly available sources. Meta's training dataset is... Show all

File Size 4.92 GB   Small & Fast   Q4_K_S ⓘ

Stability AI   3B StableLM Requires 8GB+ RAM

Stable Code Instruct 3B 🔍

Stable Code Instruct 3B is a decoder-only language model with 2.7 billion parameters, developed from the stable-code-3b. It has been trained on a combination of publicly available and synthetic datasets, with the latter generated through... Show all

File Size 2.97 GB   Less Compressed   Q8_0

⬇ Download

Conclusions

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6 big questions for Gen AI…
(source: Heaven, MIT Tech Review, 2024)

- Will we ever mitigate the bias problem?
- How will AI change the way we apply copyright?
- How will it change our jobs?
- What misinformation will it make possible?
- Will we come to grips with its costs?
- Will doomerism continue to dominate policy making?

…

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Questions...

Comments,

Discussions?!

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Workshop Evaluation

NCyTE to add instructions / QR code

Be sure to fill out sign-in sheets before you leave!

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NCYTE CENTER

Microsoft

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