

Demos

Conversational Assistance



November 2022



February 2023



March 2023



December 2022

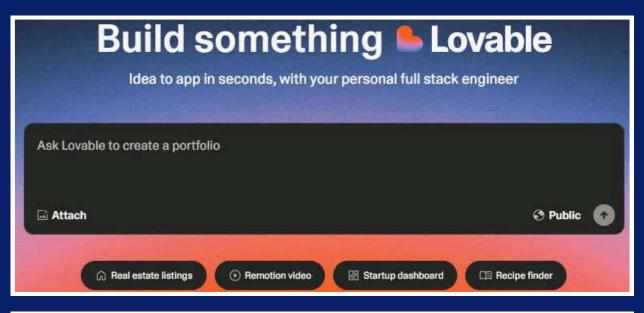


March 2023



September 2023

Vibe Coding - Ideas to App

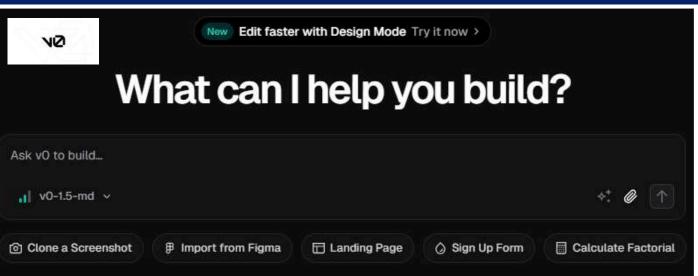


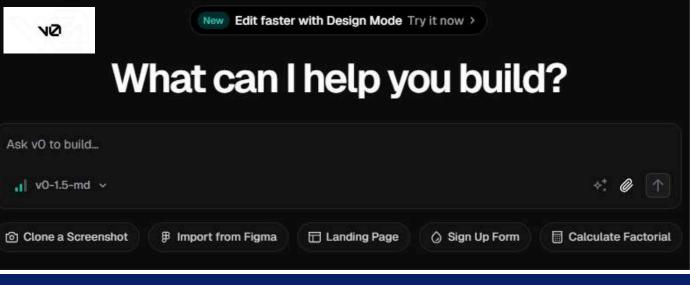
Hi Amol, what do you want to make?

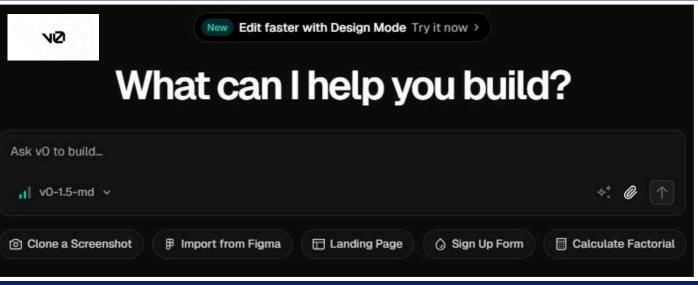
replit 🖢

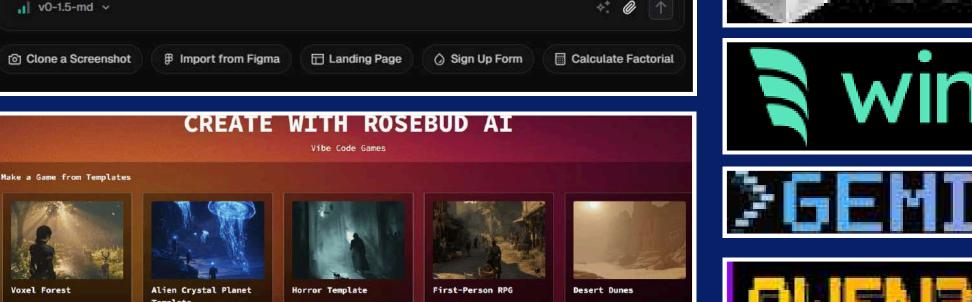
S App type: Auto ♥ (0)

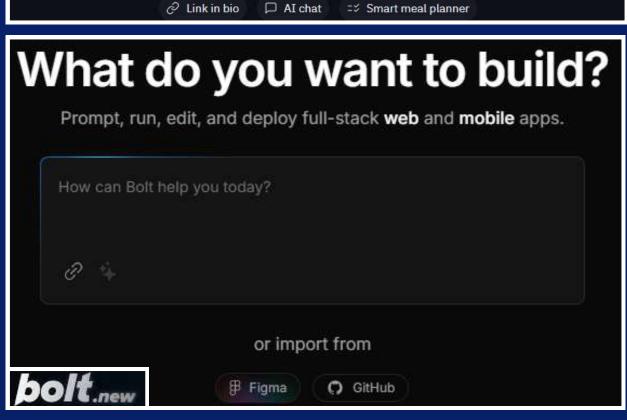
Describe an app or site you want to create...

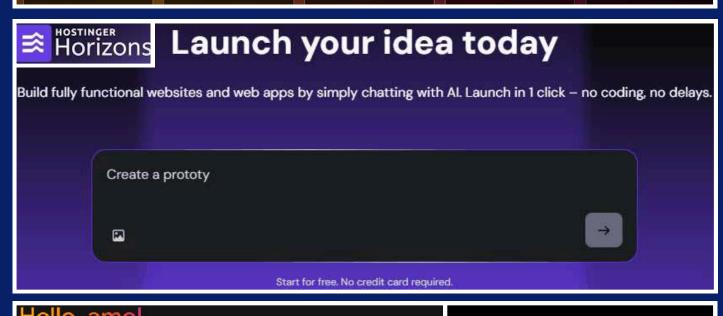


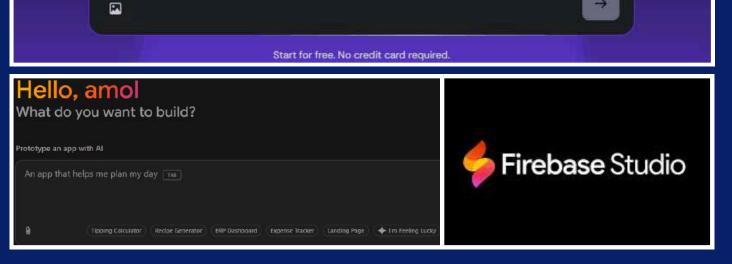
















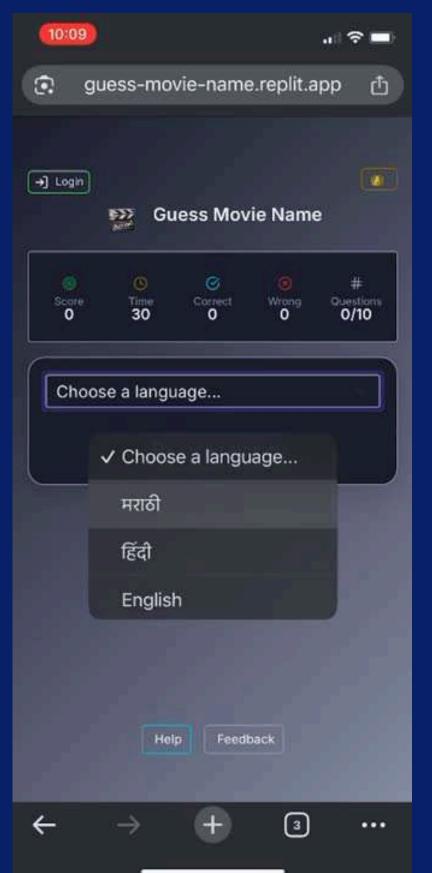




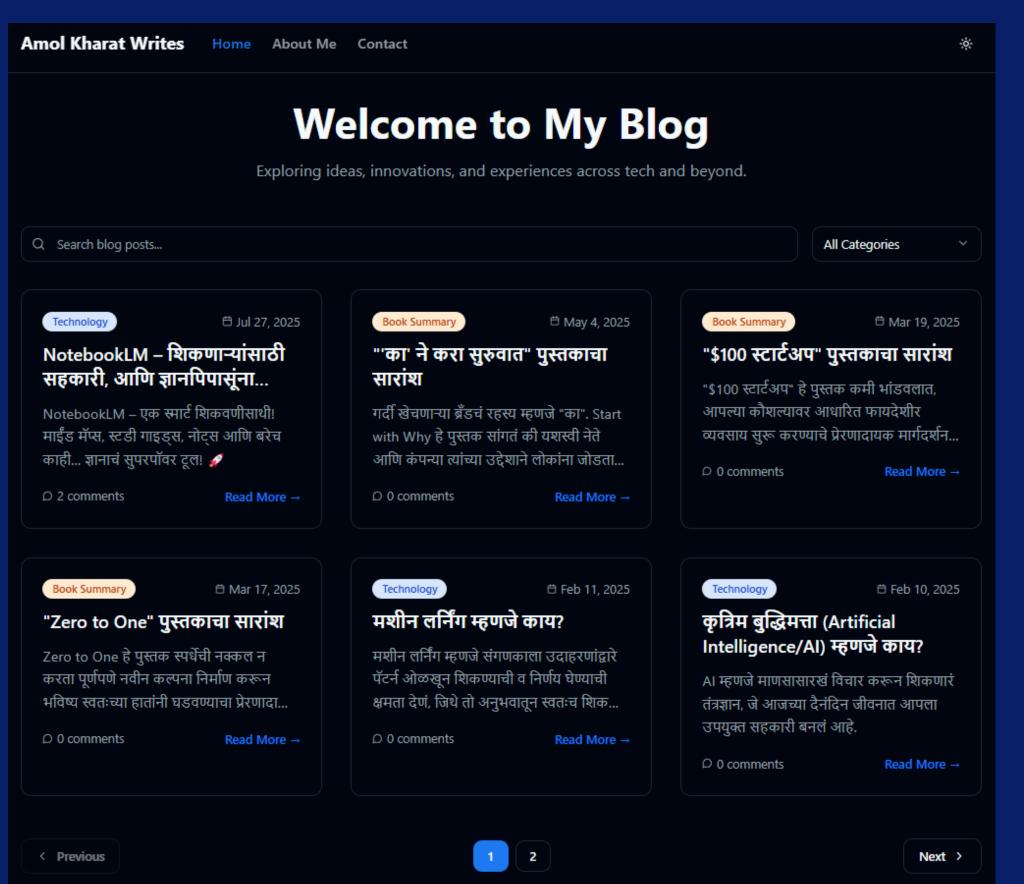




Vibe Coding - Ideas to App







https://blog.amolkharat.in

Text to Image















stability.ai







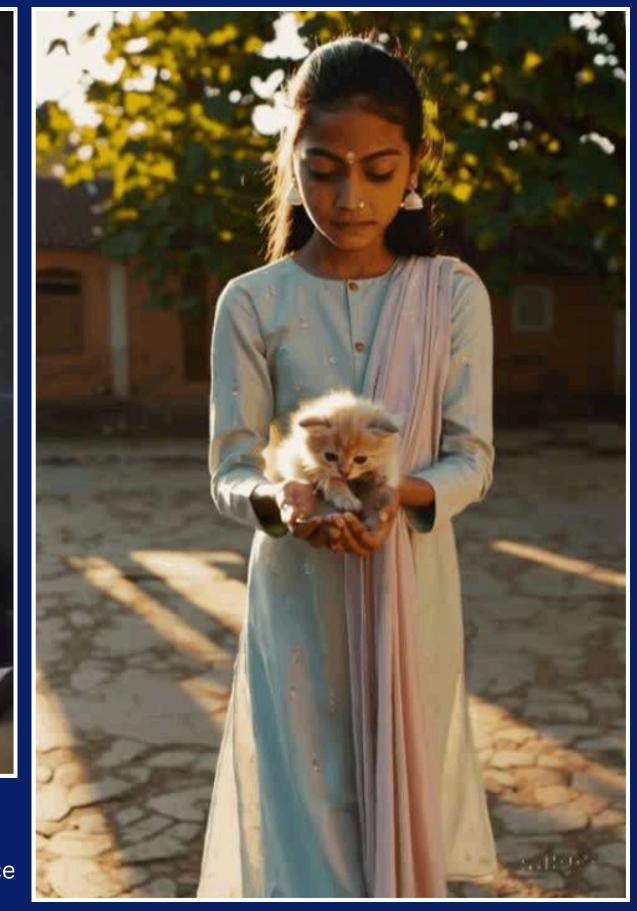


Google Veo

Text to Video



A curious young woman sitting at her desk, looking overwhelmed by a long to-do list. Suddenly, futuristic blue light particles swirl around her laptop as Generative AI tools come to life — an AI assistant helps her write emails, generate a presentation, create a music track, and design a poster — all within seconds. Her face lights up with surprise and joy. The scene transitions to her confidently presenting her work in a meeting, with teammates clapping. End with the caption: 'Generative AI — Your Creative Partner.'



OpenAl Sora

Text to Music

प्रेम की बातें, मोहब्बत का सफ़र

AR Rahman style, With guitar and piano, Classic Bollywood,





EntertainingJam7110



(† **1**



14 November 2024 at 3:14 pm

v3.5

जब भी चलें, प्रेम की राहों पे, छोड़ आएं, दर्द के साये कहीं पीछे, हर कदम, मोहब्बत का एहसास करे, जैसे हवा, इश्क़ की मिठास भरे।

तेरी बातें, छूती हैं दिल की जमीं, जैसे गीली मिट्टी में बसी हो महक कोई, ख़ामोशी में इश्क़ की आवाज़ें सुनूं, जैसे बारिश की बूंदों में छुपी हो नमी।

मोहब्बत का ये मौसम, बहके-बहके, हर पल में तू, हर सांस में बहके, तेरी नज़रों में छुपा है जो इश्क़, उसमें खोकर, मैं खुद को भी भूलूं।

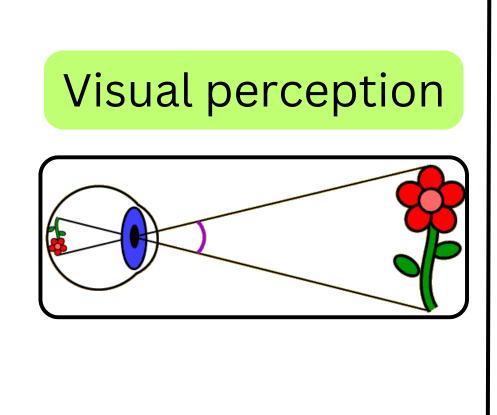
तेरा चेहरा, मेरे ख्वाबों में खिला, जैसे चांदनी रात का सितारा जला, इश्क़ में खो जाएं, प्रेम की छांव में, तू और मैं, बस मिलें इस पलाव में।

ये प्रेम की बातें, मोहब्बत का सफ़र, तेरे संग है मेरा हर एक सफर, इश्क़ में डूबा है दिल का समंदर, तेरी बाहों में मिले सारा जहां, मेरा घर।

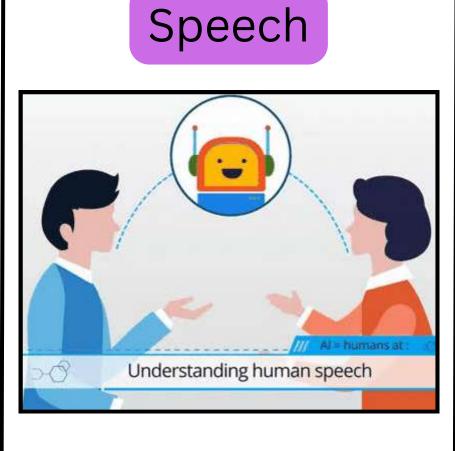
Artificial Intelligence

What is Artificial Intelligence?

Human like Capabilities



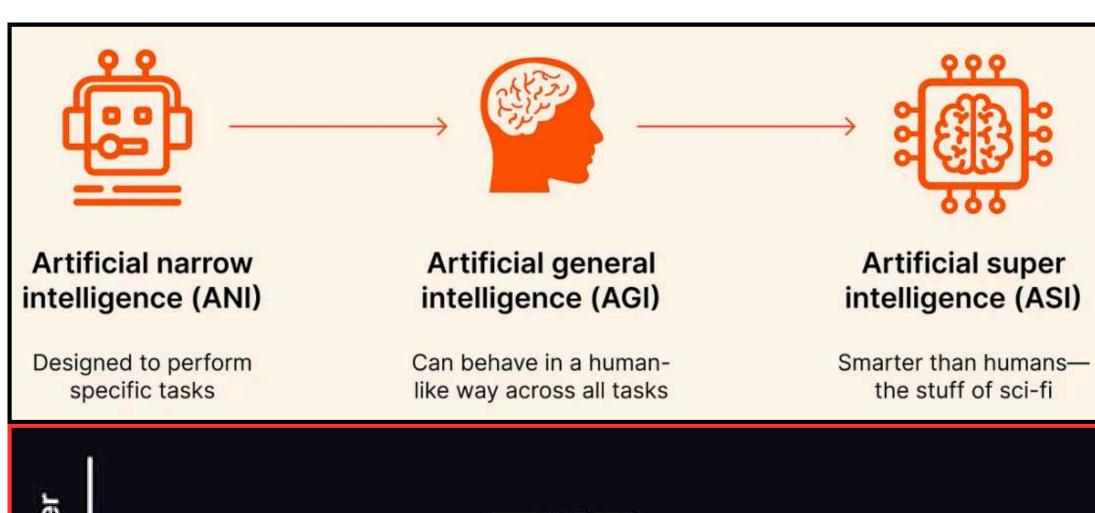


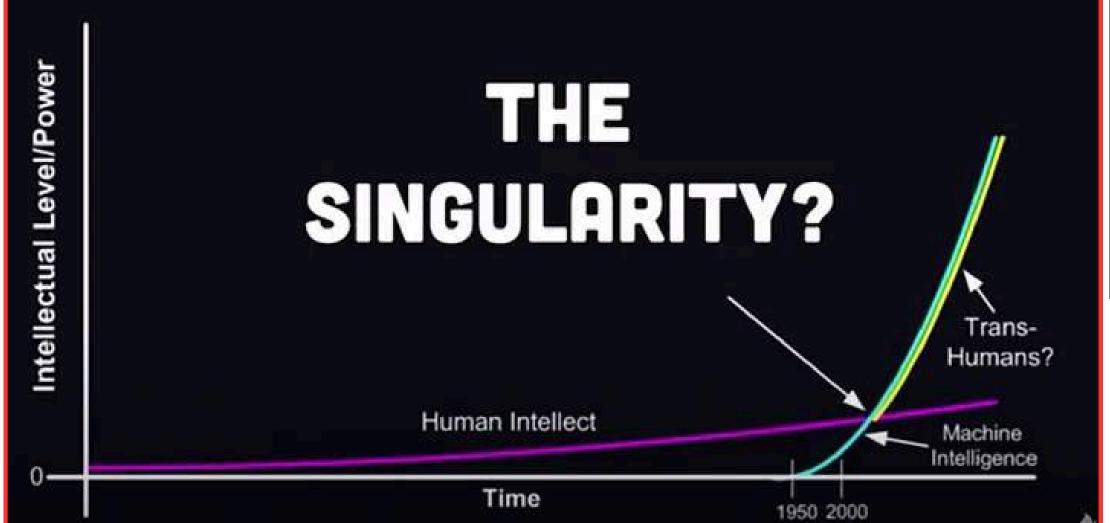


Decision Making



Types of Al





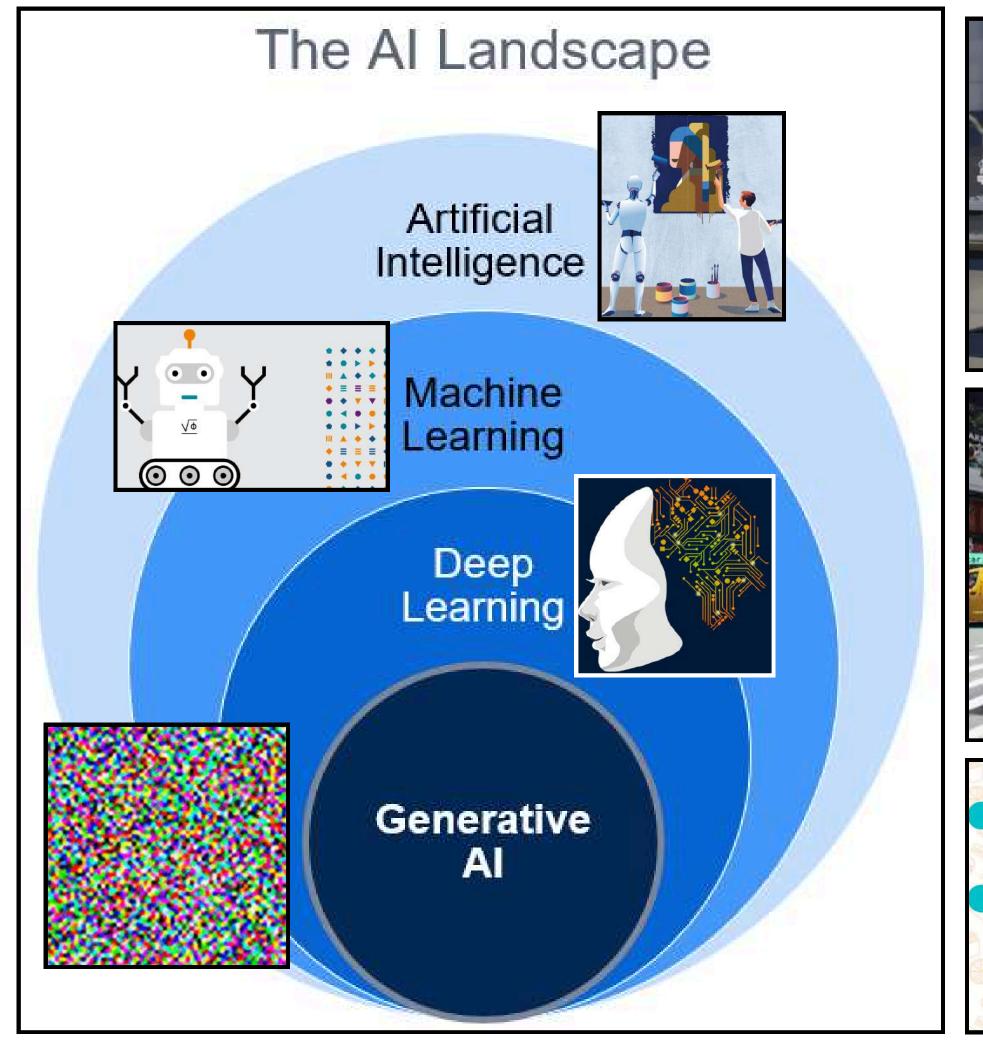


just 'a few thousand days' away

BY CHRIS MORRIS

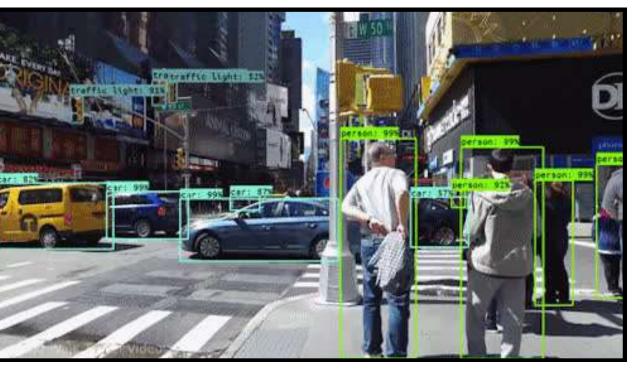
September 24, 2024 at 9:16 PM GMT+5:30





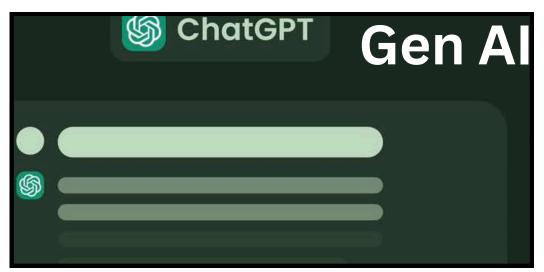


Robotics



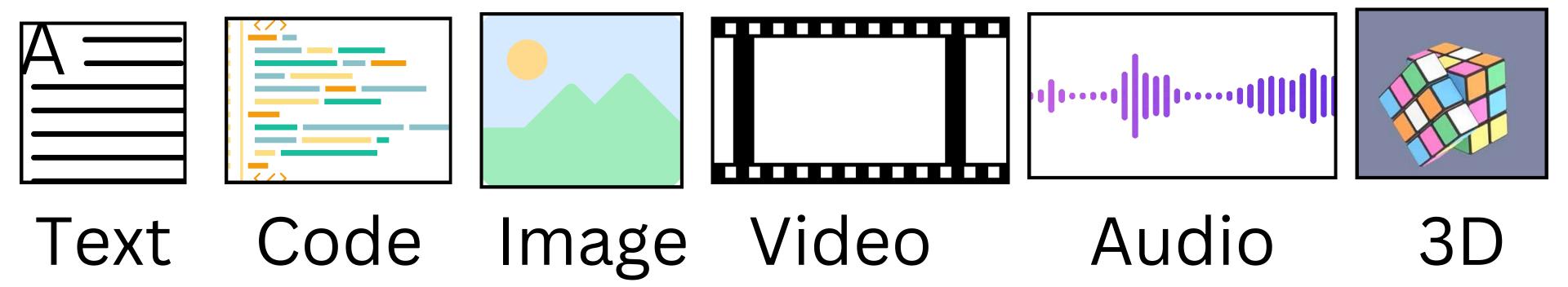
Computer Vision



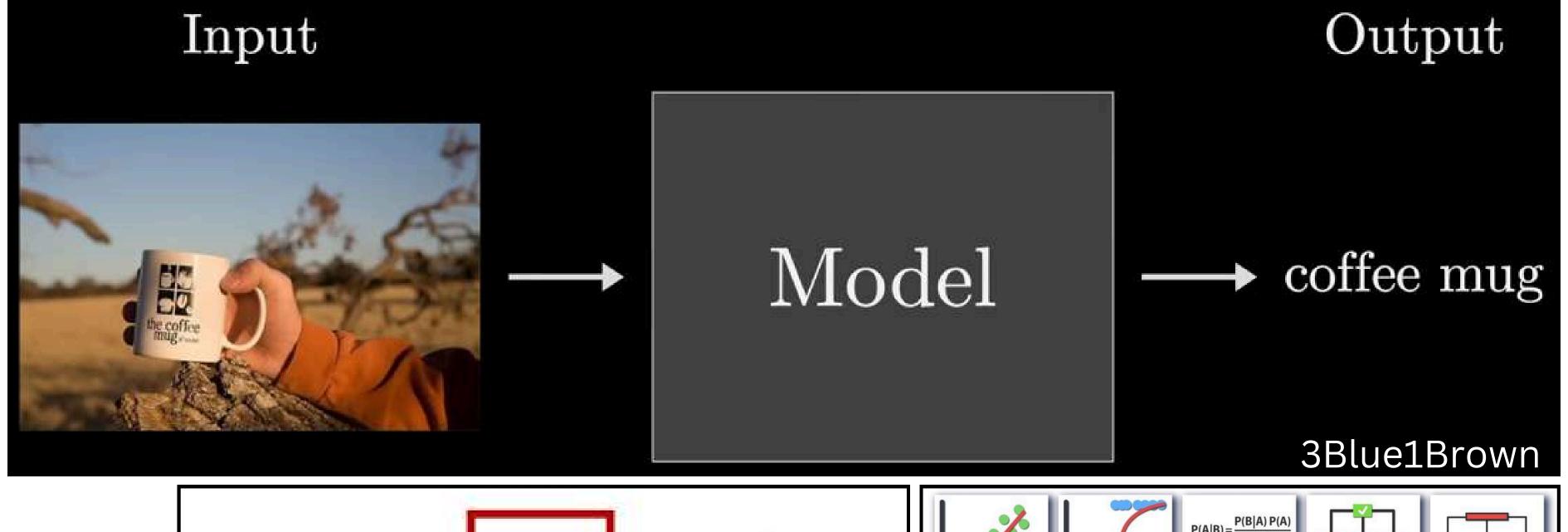


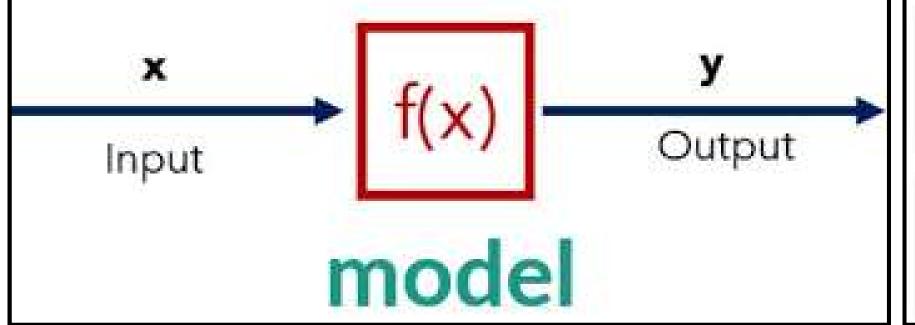
Generative Al

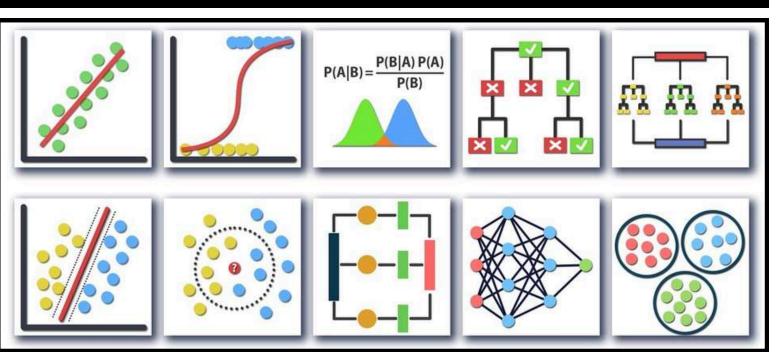
Generative Al



What is Model?



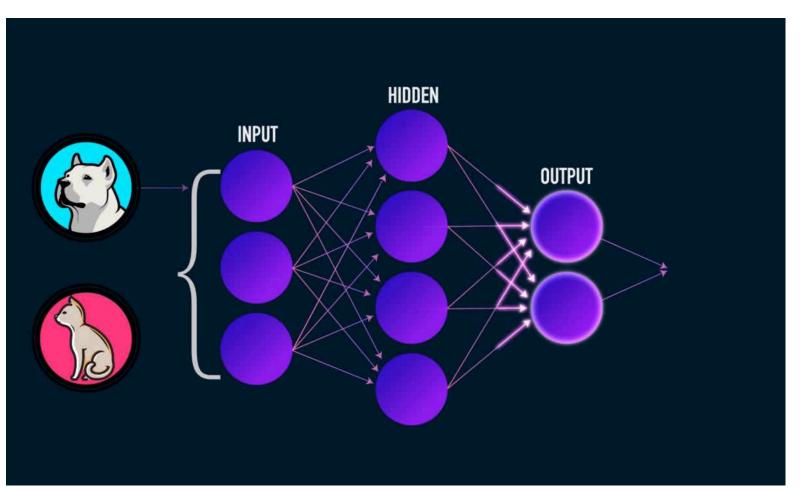


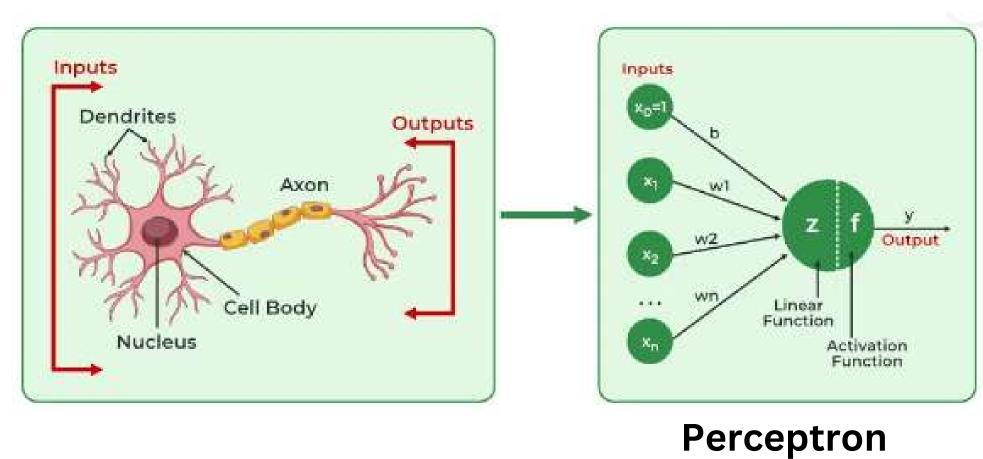


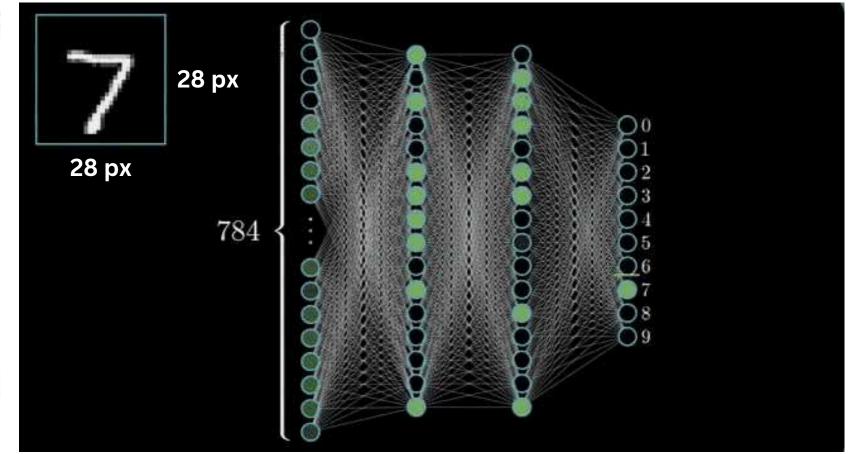
Deep Learning Models

Biological Neural Network

Artificial Neural Network



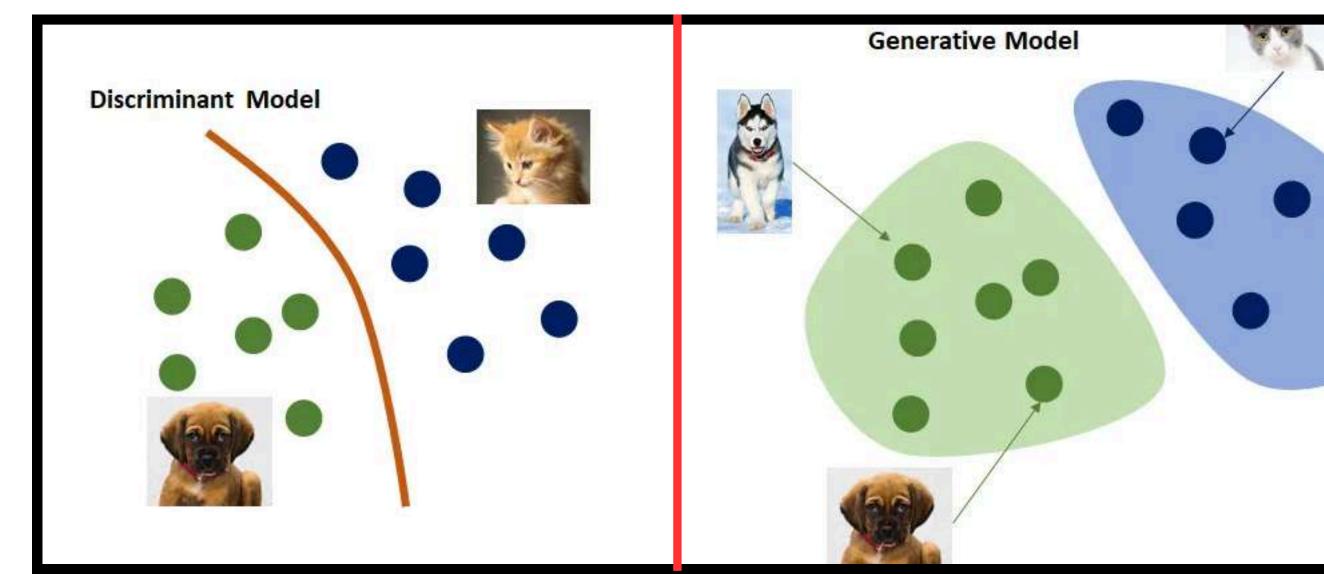


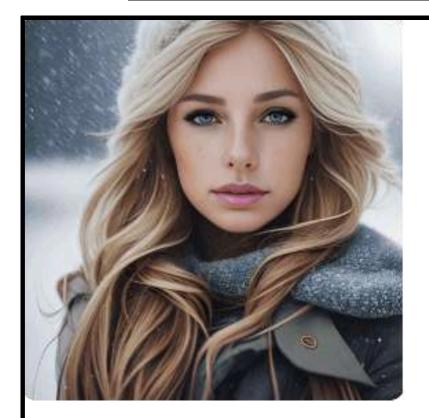


Deep Learning

Parameters: Weights, Biases

Deep / Machine Learning Models



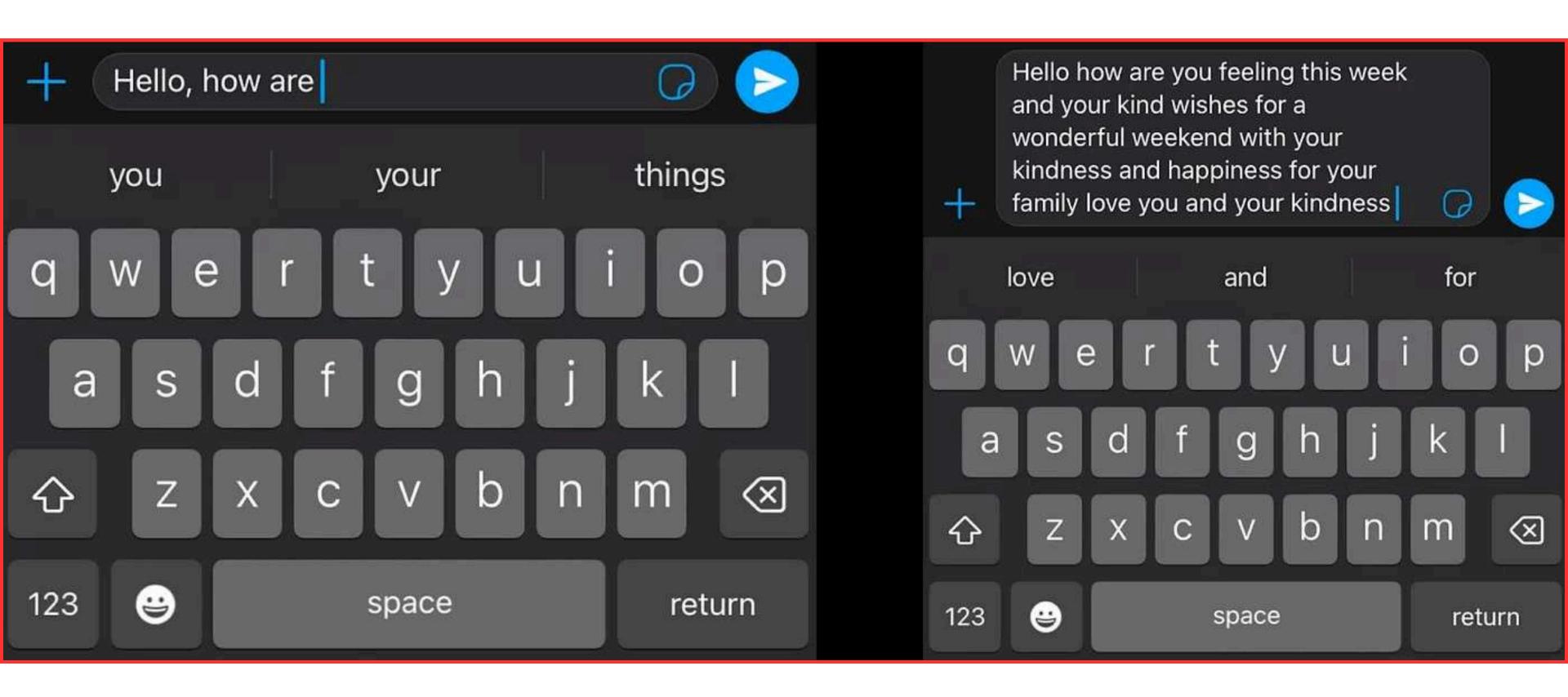




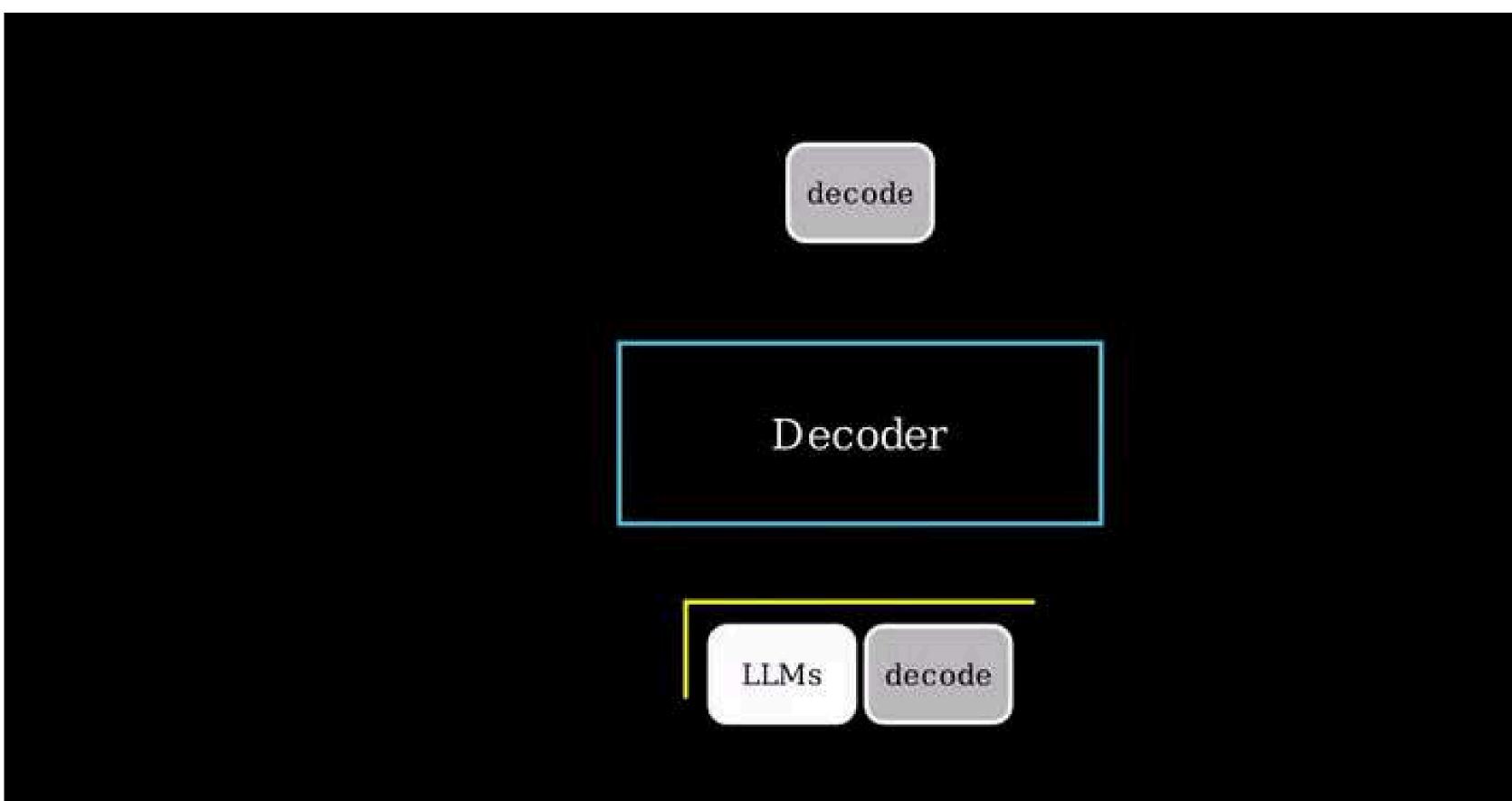




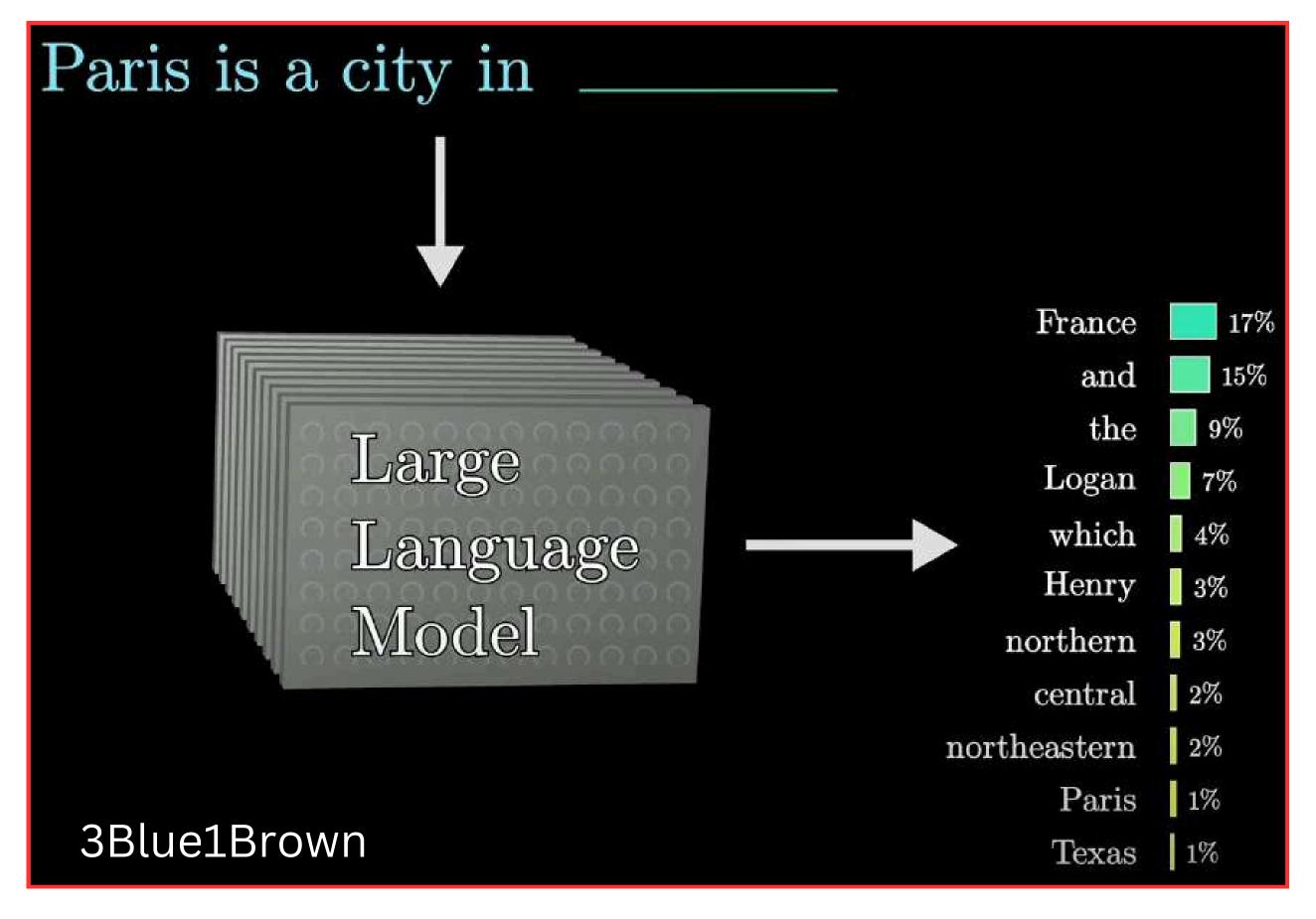
Next Word Prediction



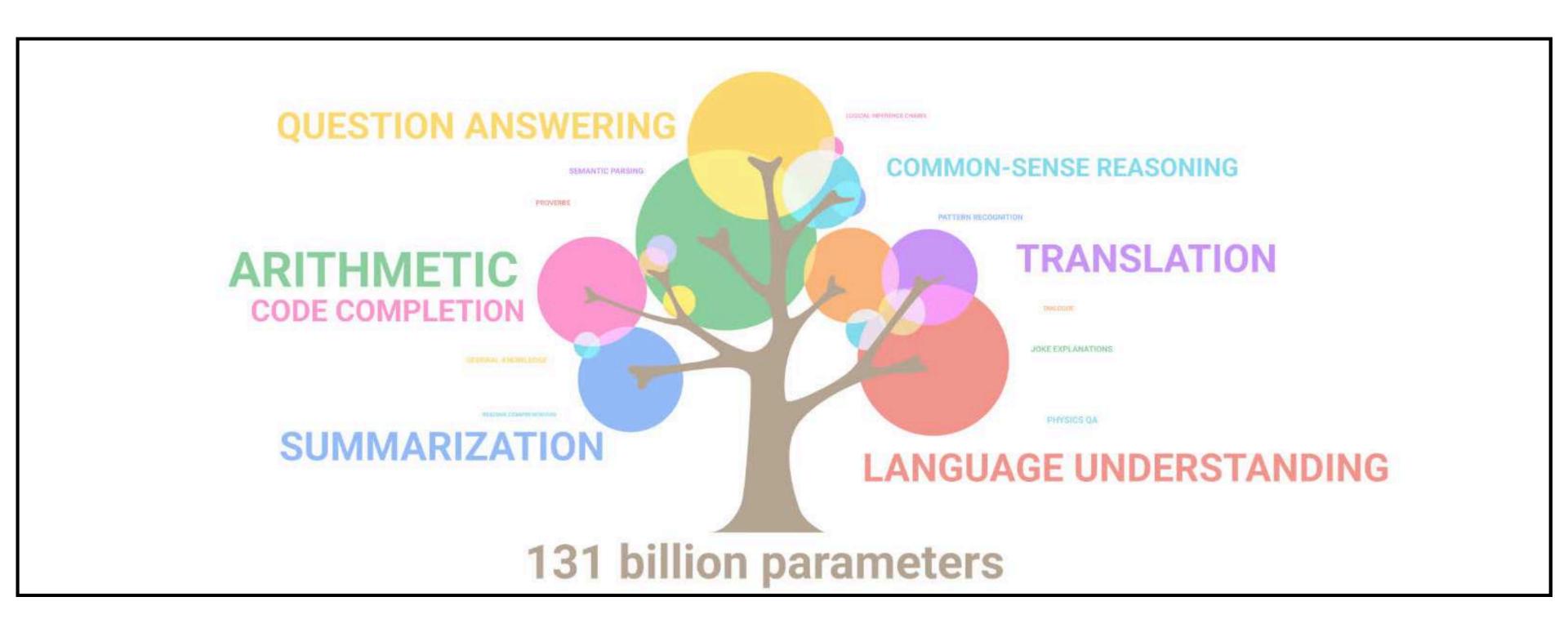
Next Word Prediction



Large Language Models



Large Language Models



Open Source











Closed Source

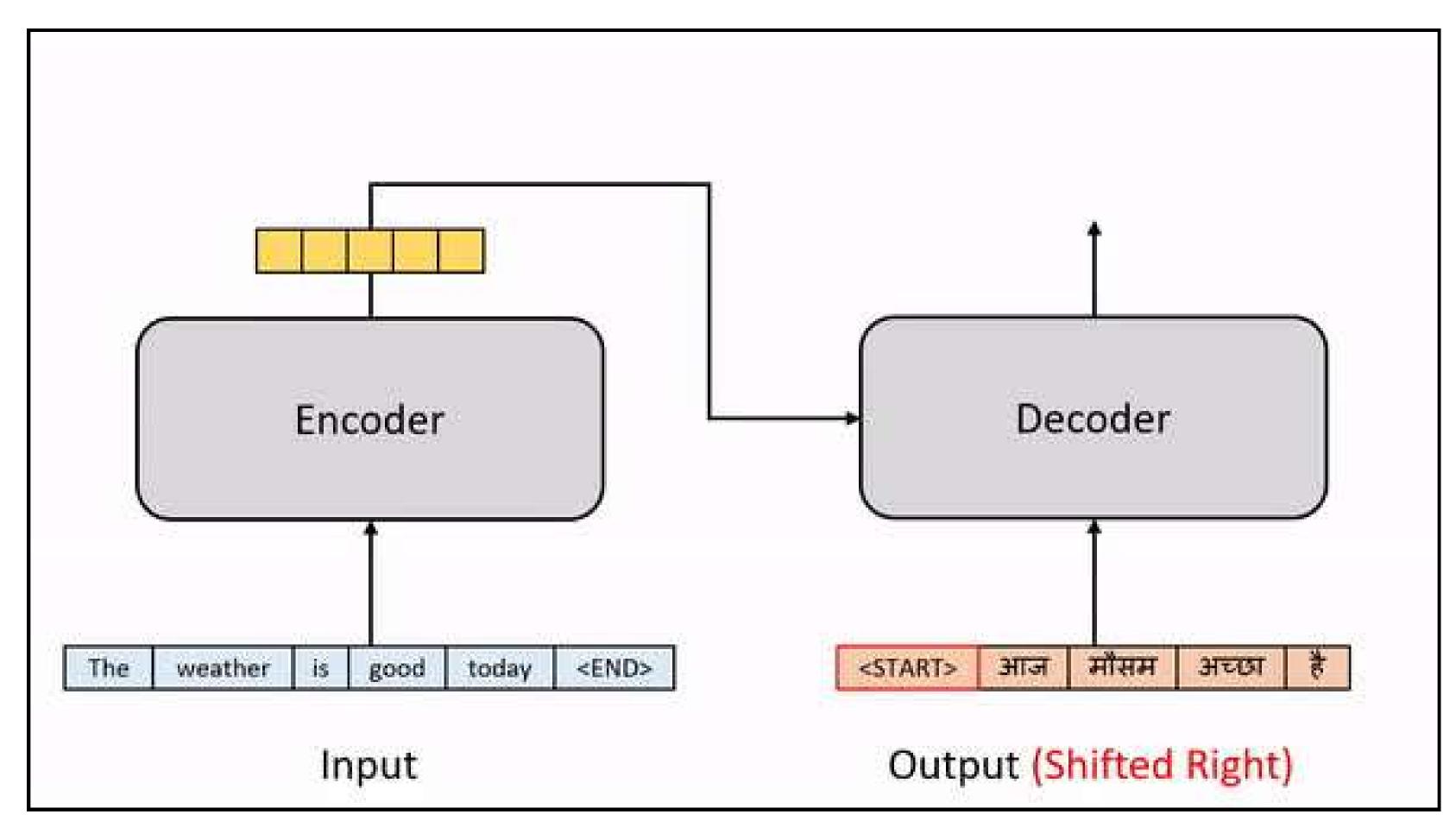








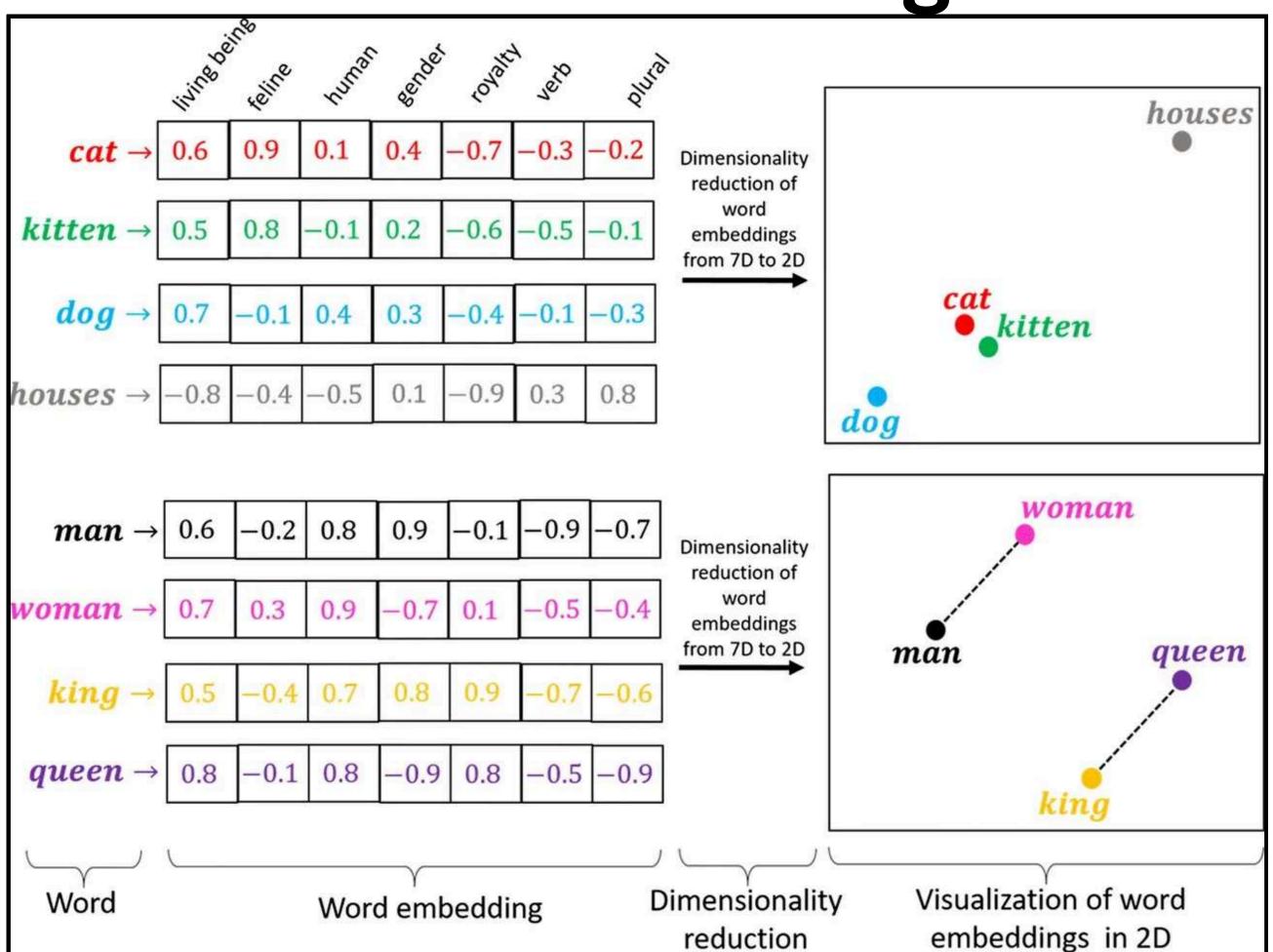
Generative Pre-trained Model



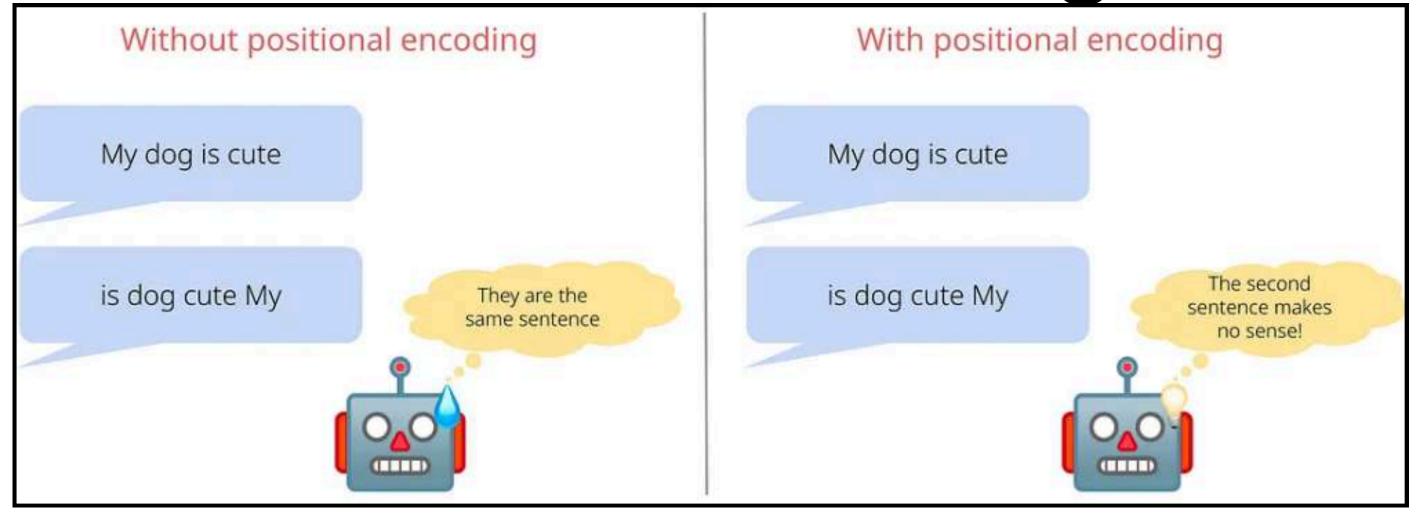
Tokenization

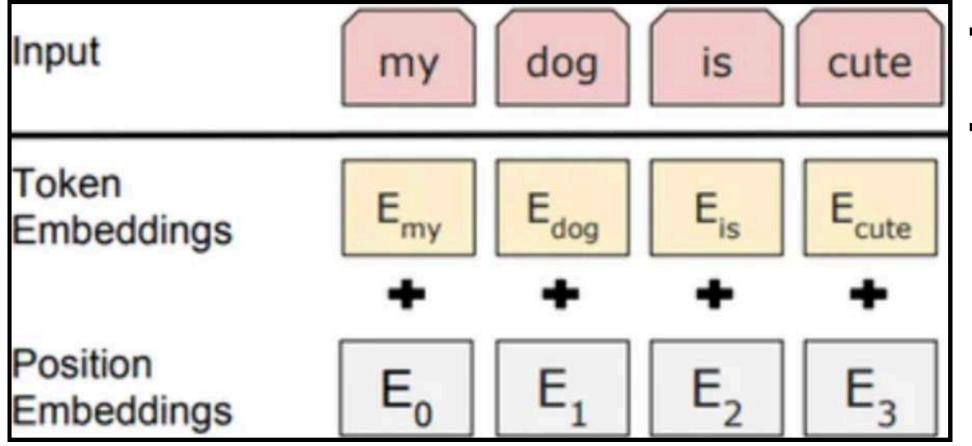
← C https://platform.openai.com/tokenizer				
OpenAl Platform				
	GPT-4o	& GPT-4o mini	GPT-3.5 & GPT-4	GPT-3 (Legacy)
	How are you?			
	Clear	Show example		
	Tokens	Characters		
	4	12		
	How are you?			

Word Embedding



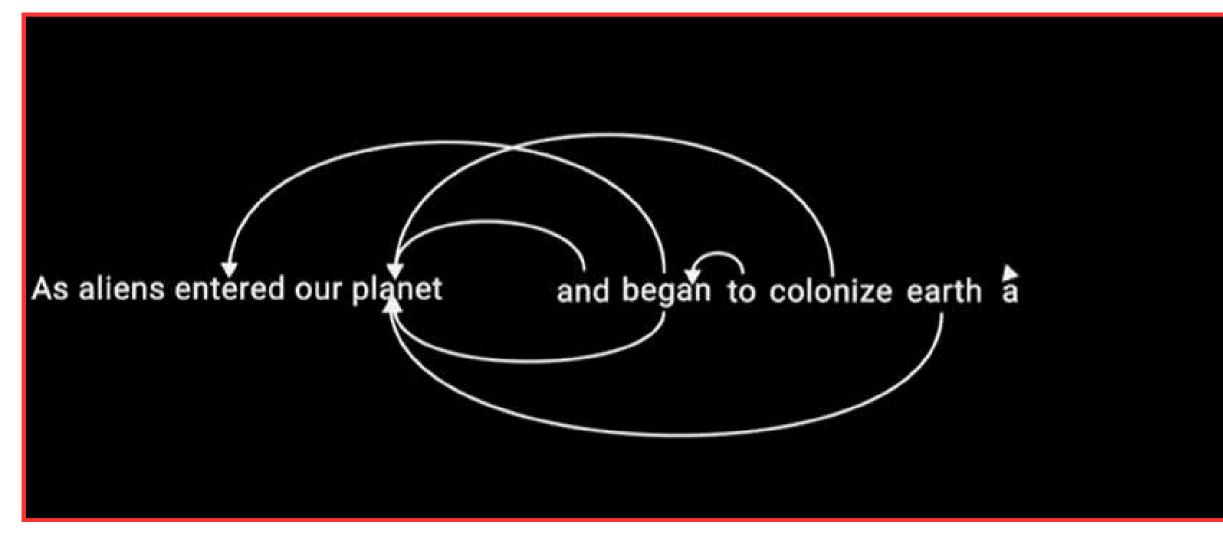
Positional Encoding

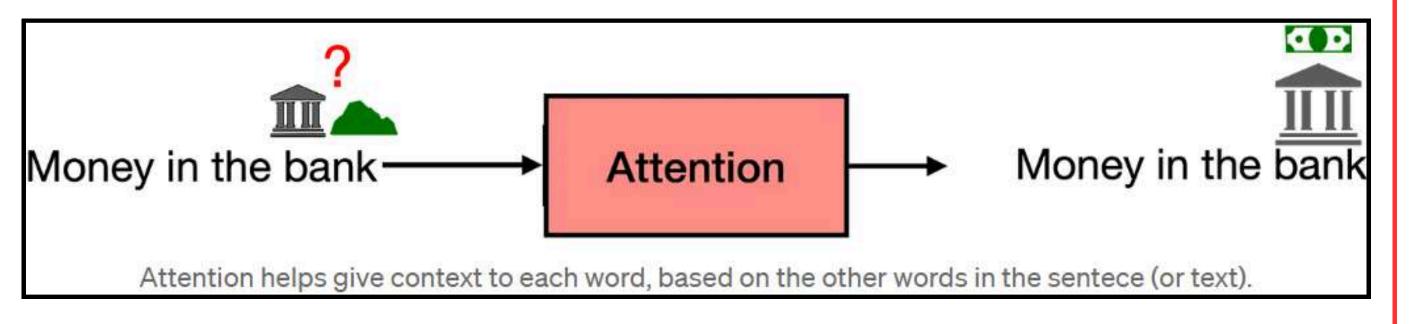




The dog chased cat The cat chased dog.

Attention Mechanism





Attention Is All You Need

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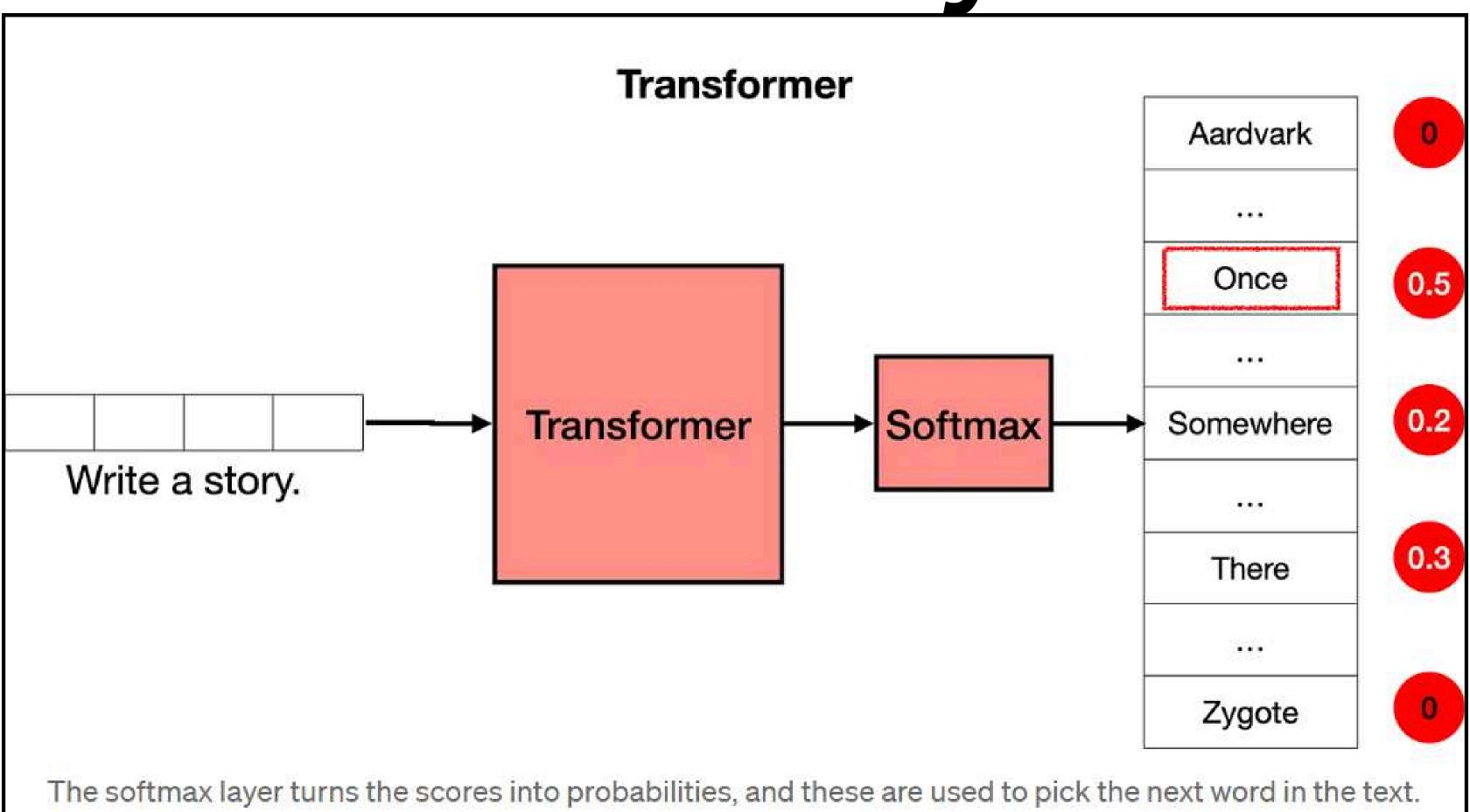
Lukasz Kaiser*
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Abstract

The dominant sequence transduction models are based on complex recurrent or convolutional neural networks that include an encoder and a decoder. The best performing models also connect the encoder and decoder through an attention mechanism. We propose a new simple network architecture, the Transformer, based solely on attention mechanisms, dispensing with recurrence and convolutions entirely. Experiments on two machine translation tasks show these models to be superior in quality while being more parallelizable and requiring significantly less time to train. Our model achieves 28.4 BLEU on the WMT 2014 Englishto-German translation task, improving over the existing best results, including ensembles, by over 2 BLEU. On the WMT 2014 English-to-French translation task, our model establishes a new single-model state-of-the-art BLEU score of 41.8 after training for 3.5 days on eight GPUs, a small fraction of the training costs of the best models from the literature. We show that the Transformer generalizes well to other tasks by applying it successfully to English constituency parsing both with large and limited training data.

Softmax Layer



Gen Al Models / Tools

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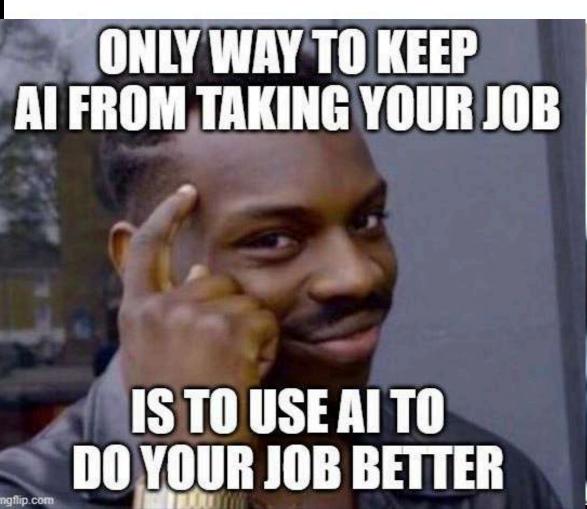
Hype Or Reality: Will AI Really Take Over Your Job?

Bernard Marr Contributor ①



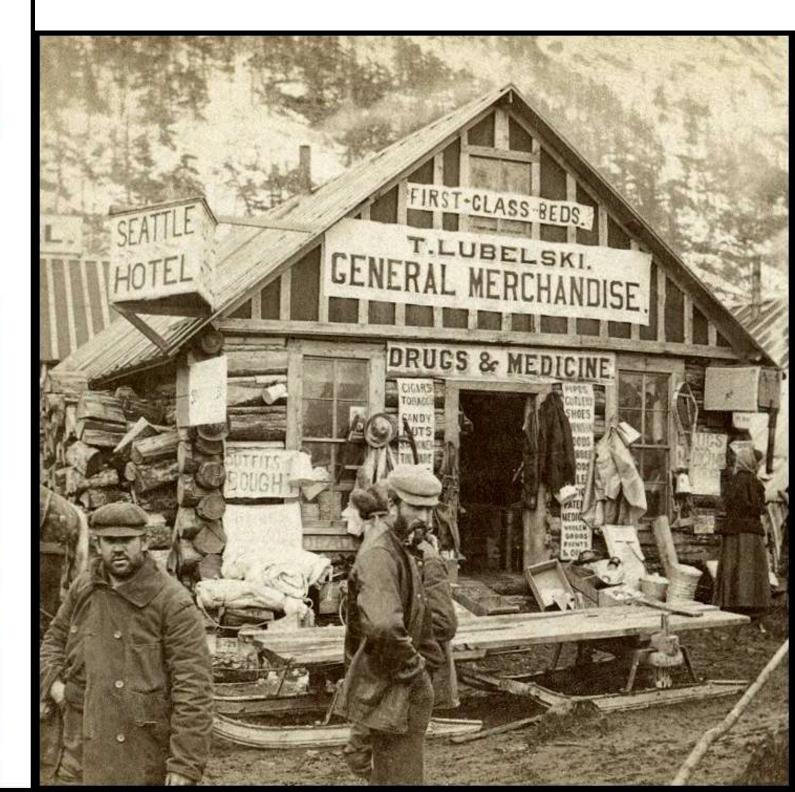


May 15, 2024, 01:31am EDT





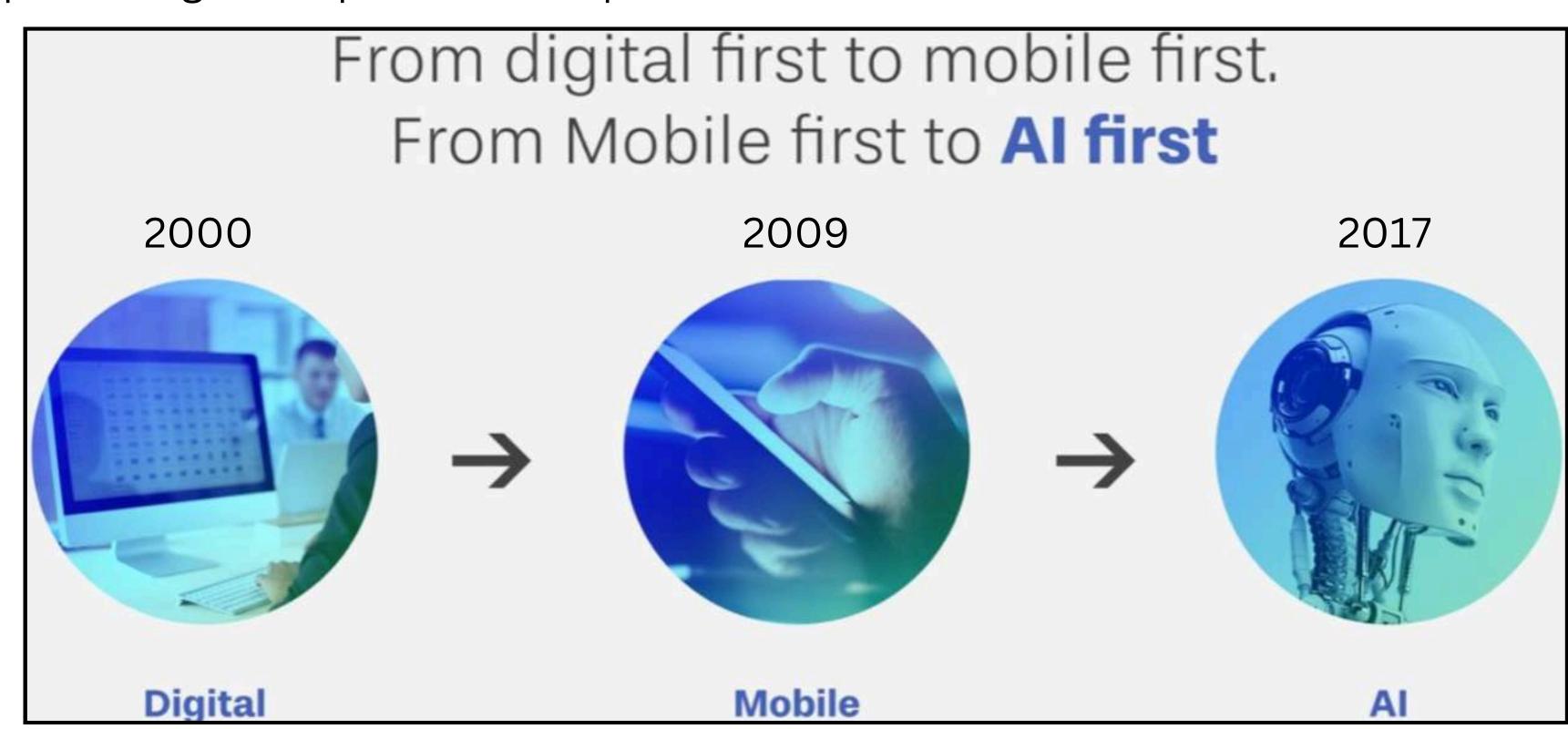
Every technological disruption is a gateway to new possibilities; it challenges us to innovate, adapt, and seize the opportunities it creates.



Infosys Al Initiative

Al First Mindset

The key idea is that computers should adapt how people live their lives rather than people having to adapt to the computers.





Al First Mindset

Ability to interact with computing in a natural and seamless way



Ambient, multi-device presence of computing



Thoughtful contextual computing

Infosys Initiatives

Infosys Al-First Initiative: To apply Generative Al concepts for our inhouse work/Projects.

Al Cloud

Issues with hosted models:

- Security: Clients do not want to expose their data on the internet.
- The data may be reused for training.
- Cost of accessing / finetuning

GPU enabled Infra available for working with Large language models

Al Cloud Access

Topaz

- Al-First Initiative
- Set of business use-cases, APIs that can be used for client projects.
- Our experience and artifacts that can be leveraged to accelerate client Projects.

Portal to consolidate the Knowledge and experience and co-ordination with teams for reuse of artifacts across projects.





Infosys | An Al-first offering to accelerate business value for global enterprises, including generative Al

What is Infosys Topaz?

Infosys Topaz is an Al-first set of services, solutions and platforms using generative Al technologies. It helps amplify the potential of humans, enterprises and communities to create value from unprecedented innovations, pervasive efficiencies and connected ecosystems. It brings the advantage of 12,000+ Al assets, 150+ pre-trained Al models, 10+ Al platforms steered by Al-first specialists and data strategists, and a 'responsible by design' approach that is uncompromising on ethics, trust, privacy, security and regulatory compliance. Leveraging Infosys applied AI framework to build an Al-first core that empowers people to deliver cognitive solutions, Infosys Topaz help enterprises: accelerate growth, build connected ecosystems & unlock efficiencies at scale.

The Economic Times

Infosys launches small language models built on Nvidia Al stack

<u>Channel Page</u>

Infosys on Thursday launched its small language models (SLMs) built using the NVIDIA Al Stack. The two SLMs are - Infosys Topaz BankingSLM...



Generative Al Channel



Generative AI Channel on Lex

Thank You

amol.kharat@infosys.com