



Introduction to Artificial Intelligence



Introduction to AI



AI in 2023



Thoughts on AI



History of AI



Sub-Fields of AI



AI in Automobiles



AI in Agriculture



AI in Health Care





AI in Navigation



AI in Robotics



AI in HR



AI in Social Media



AI in E-commerce



ChatGPT



Midjourney



>>> Introduction to Artificial Intelligence

Artificial intelligence (AI) is currently one of the hottest buzzwords in tech and with good reason.

Artificial Intelligence is a method of making a computer, a computer-controlled robot, or a software think intelligently like the human mind.

From healthcare to retail, banking to logistics, and entertainment to manufacturing, AI drives efficiency, empowering decision-making and enhancing customer experiences for businesses.

>>> Artificial Intelligence in 2023

Global AI Market

According to Tractica, the global AI market is expected to reach a revenue of \$118.6 billion by 2025

1

2

3

4

Improve Email Marketing

87% of companies that have adopted AI were using it to improve email marketing

User Growth

According to Gartner, AI usage has grown by 270% in the last four years

Surveillance

75 countries are using AI technology for Surveillance

>>> Thoughts on Artificial Intelligence



We can build a much brighter future where humans are relieved of menial work using AI capabilities.

Andrew Ng, Founder of DeepLearning.AI; Founder and CEO of Landing AI

AI will impact every industry on Earth, including manufacturing, agriculture, health care, and more.

Fei-Fei Li, AI Researcher & Professor, Stanford University



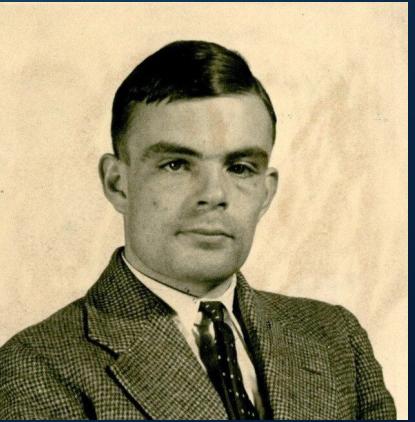
There is no reason and no way that a human mind can keep up with an artificial intelligence machine by 2035.

Gray Scott, New Media, AI



>>> History of Artificial Intelligence

Alan Turing proposes the Turing Test as a measure of machine intelligence.



1950

The term "Artificial Intelligence" is coined at the Dartmouth Conference.

1956

Welcome to

EEEEEE	LL	IIII	ZZZZZZ	AAAAAA
EE	LL	II	ZZ	AA AA
EEEEEE	LL	II	ZZZ	AAAAAAA
EE	LL	II	ZZ	AA AA
EEEEEE	LLLLLL	IIII	ZZZZZZ	AA AA

Eliza is a mock Rogerian psychotherapist.
The original program was described by Joseph Weizenbaum in 1966.
This implementation by Norbert Landsteiner 2005.

ELIZA: Is something troubling you ?
YOU: Men are all alike.
ELIZA: What is the connection, do you suppose ?
YOU: They're always bugging us about something or other.
ELIZA: Can you think of a specific example ?
YOU: Well, my boyfriend made me come here.
ELIZA: Is it important to you that your boyfriend made you come here ?
YOU: He says I'm depressed much of the time.
ELIZA: I am sorry to hear that you are depressed.
YOU: It's true. I am unhappy.
ELIZA: Can you explain what made you unhappy ?
YOU:

1966

Joseph Weizenbaum creates ELIZA, an early natural language processing computer program.

>>> History of Artificial Intelligence

IBM's Deep Blue defeats world chess champion Garry Kasparov, demonstrating significant advances in AI's problem-solving capabilities.

1997



2011

IBM's Watson wins on the quiz show "Jeopardy!" against two of the show's greatest champions.

Google Brain's deep convolutional neural network, AlexNet, significantly improves image recognition accuracy at the ImageNet competition.

2012



airplane	
automobile	
bird	
cat	
deer	
dog	
frog	
horse	
ship	
truck	

>>> History of Artificial Intelligence

In 2016, Google DeepMind's AlphaGo defeats world champion Go player Lee Sedol.



2014



2018

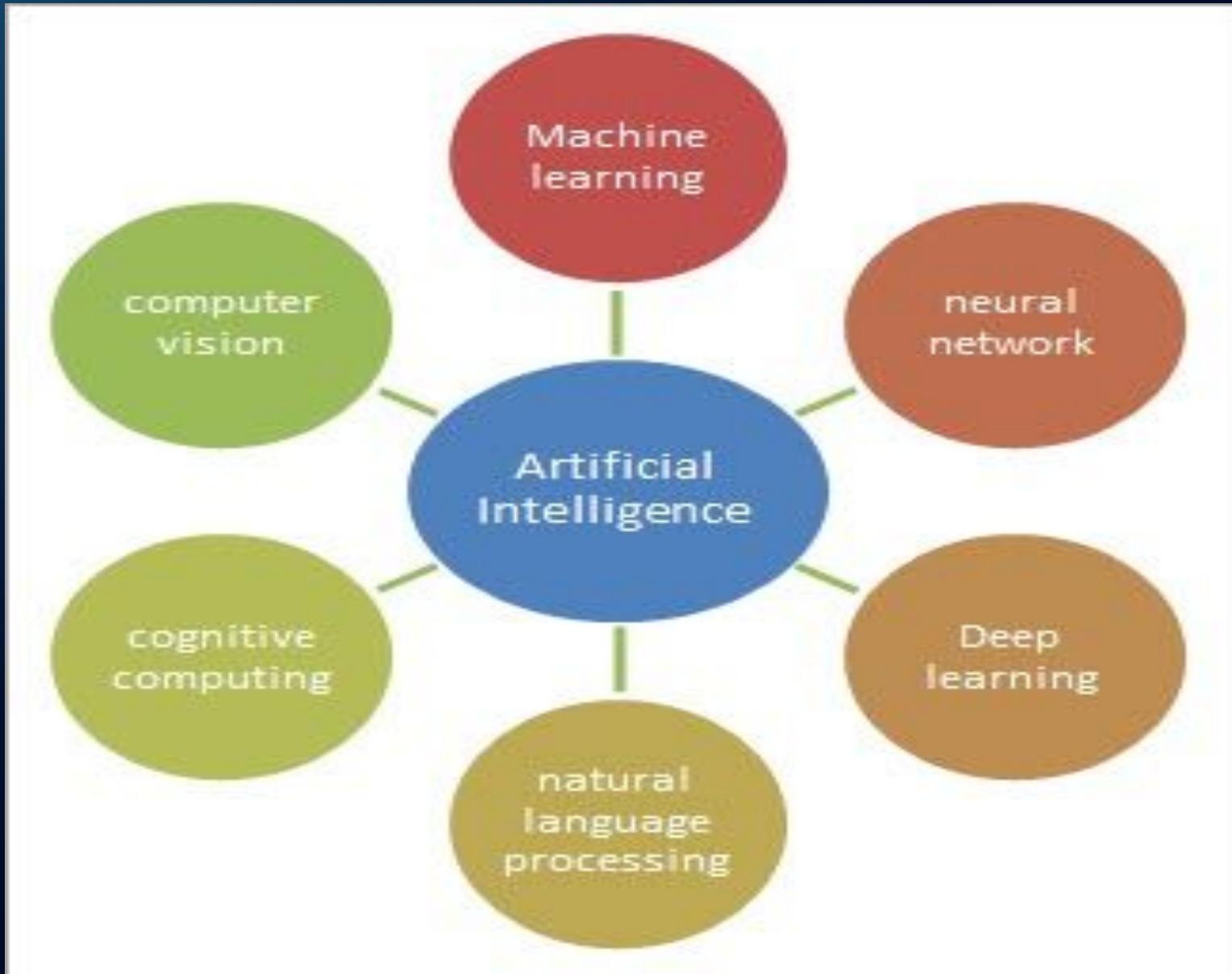
OpenAI demonstrates that a system trained entirely through reinforcement learning can control a humanoid hand with unprecedented dexterity.

GPT-3, developed by OpenAI, showcases advanced levels of language understanding and generation, prompting widespread interest and applications of generative AI across industries.

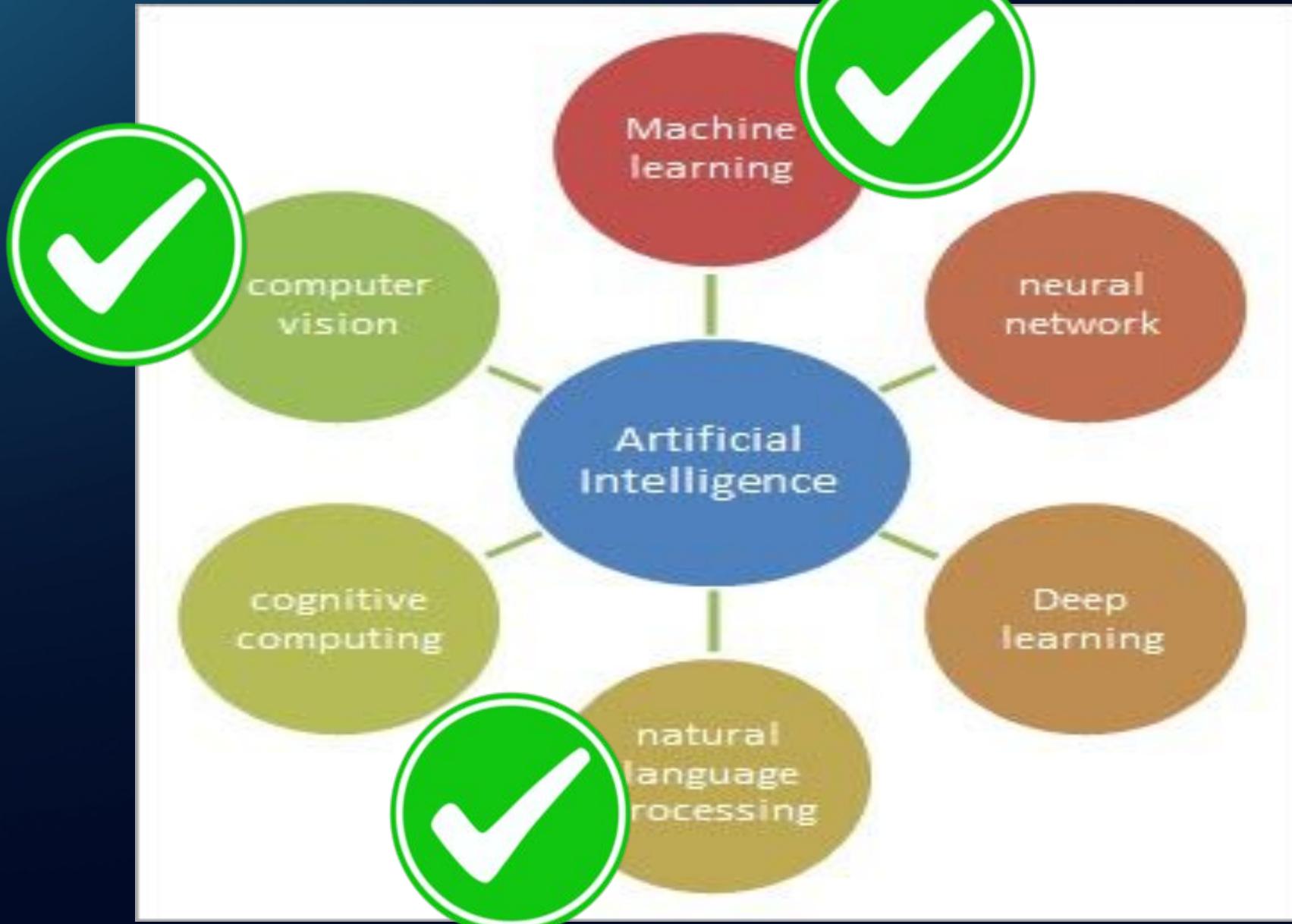
2021



»» Sub-Fields of Artificial Intelligence



>>> Sub-Fields of Artificial Intelligence



Artificial Intelligence in Automobiles



Driverless Automobiles

Ai can be used along with the vehicle's camera , radar, cloud services, GPS and control signals to operate the vehicle



Driver Assistant

AI can be used to improve the in-vehicle experience. AI can be used to provide additional systems like emergency braking, blind spot monitoring, driver-assist steering



»» Artificial Intelligence in Agriculture



Monitoring Crop And Soil Health

Artificial Intelligence can be used to identify defencts and nutrient deficiencies in the soil



Decreased Pesticide Usage

With the help of computer vision, robotics and machine learning, AI can be used to analyze where weeds are growing



Agriculture Bots

AI bots can be used to harvest crops at higher volume and faster pace than human loborers



Artificial Intelligence in Healthcare



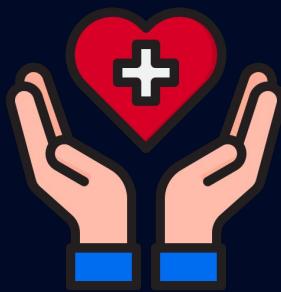
Patient Care

- Audit systems that use AI can prevent prescription errors and ensure the disease is properly identified
- Prescriptive analysis can be performed on patient data for ensuring that the case is prioritized in real time and triage can be performed



Medical Imaging and Diagnostics

AI can help analyze chronic conditions with the help of lab and other medical data to ensure early diagnosis



Research and Development

Ai can be used for discovering new drugs based on previous data and medical intelligence

The Future

By 2030, AI will access multiple sources of data to reveal patterns in disease and aid treatment and care.

Artificial Intelligence in Navigation

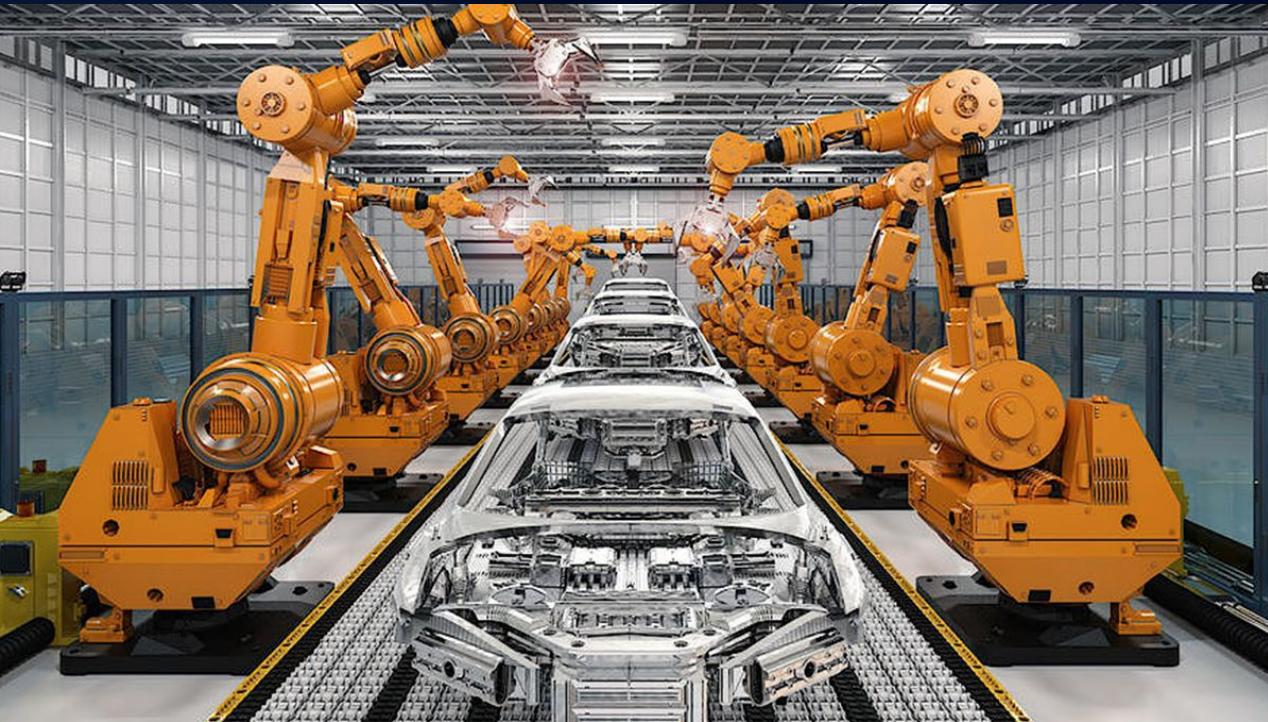
Based on research from MIT, and AI using a combination of CNN and GNN, would enable an GPS application to automatically predict the number of lanes and road types behind obstructions



Artificial Intelligence in Robotics

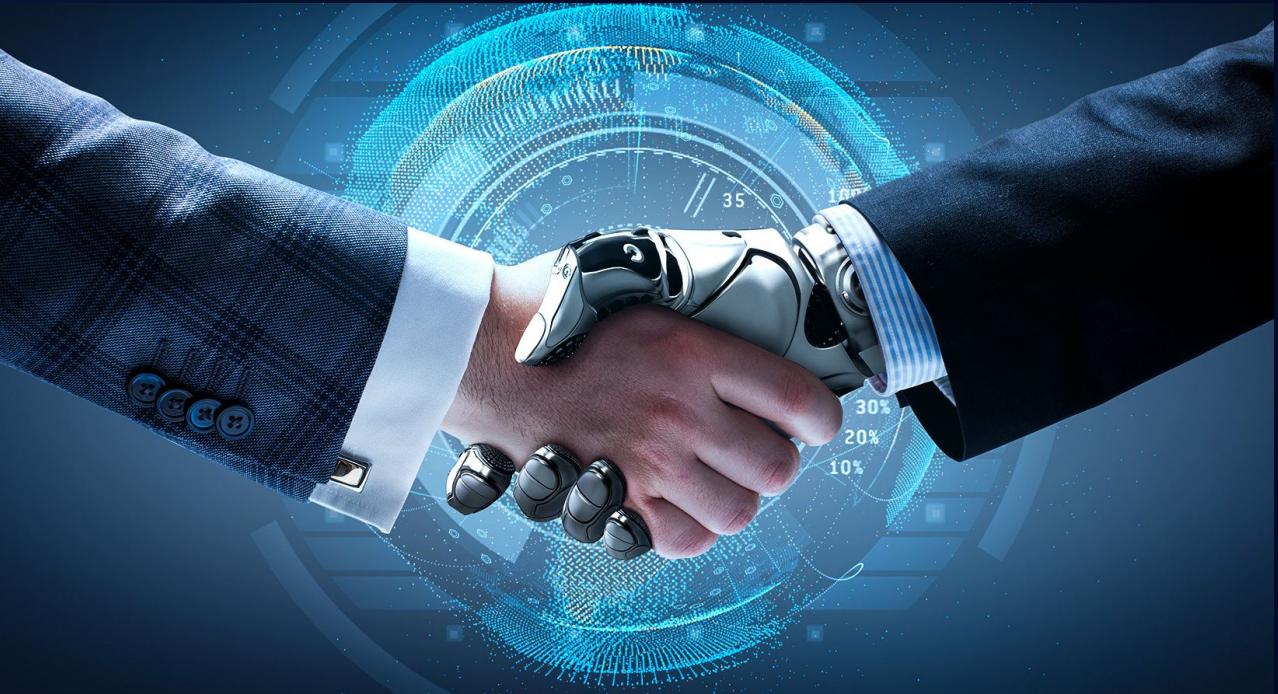
AI enables robots will be able to maneuver through its path of travel with real-time updates. It uses this path to sense obstacles and pre-plan its path

- AI intelligence can be enhanced by conducting analysis of data obtained from sensors
- It is used to avoid unnecessary breakdowns and the associated costs of major issues



Artificial Intelligence in HR

Machine Learning can be used to sort through applications based on specified parameters. this can enable teams to diversify based on skills, education background, gender and other unique characteristics



>>> Artificial Intelligence in Social Media

facebook

- AI is being used for **Picture Analyzing** to recognize people in photo
- AI is also used along with a tool called **Deep Text**. With this tool, Facebook can better understand conversations

- AI is used to show what posts you get to see on the Explore feature based on the likes and accounts you follow
- AI can reognize abd remove spam messages from user accounts using Facebook's **Deep text** tool

Twitter

- AI is being used by Twitter for fraud detection, removing propaganda and hateful content
- Twitter also uses AI to recommend tweets users might enjoy, based on what type of tweets you engage with

Instagram

>>> Artificial Intelligence in E-Commerce



Smart Purchasing

AI helps with Forecasting demand for products and enhance the decision making behind what items to stock up, and when it should be done, so that customer expectations can be met.

Personalized Shopping

Recommendation engines can enable you to engage with your customers, by taking into consideration their usage history, preferences and interests

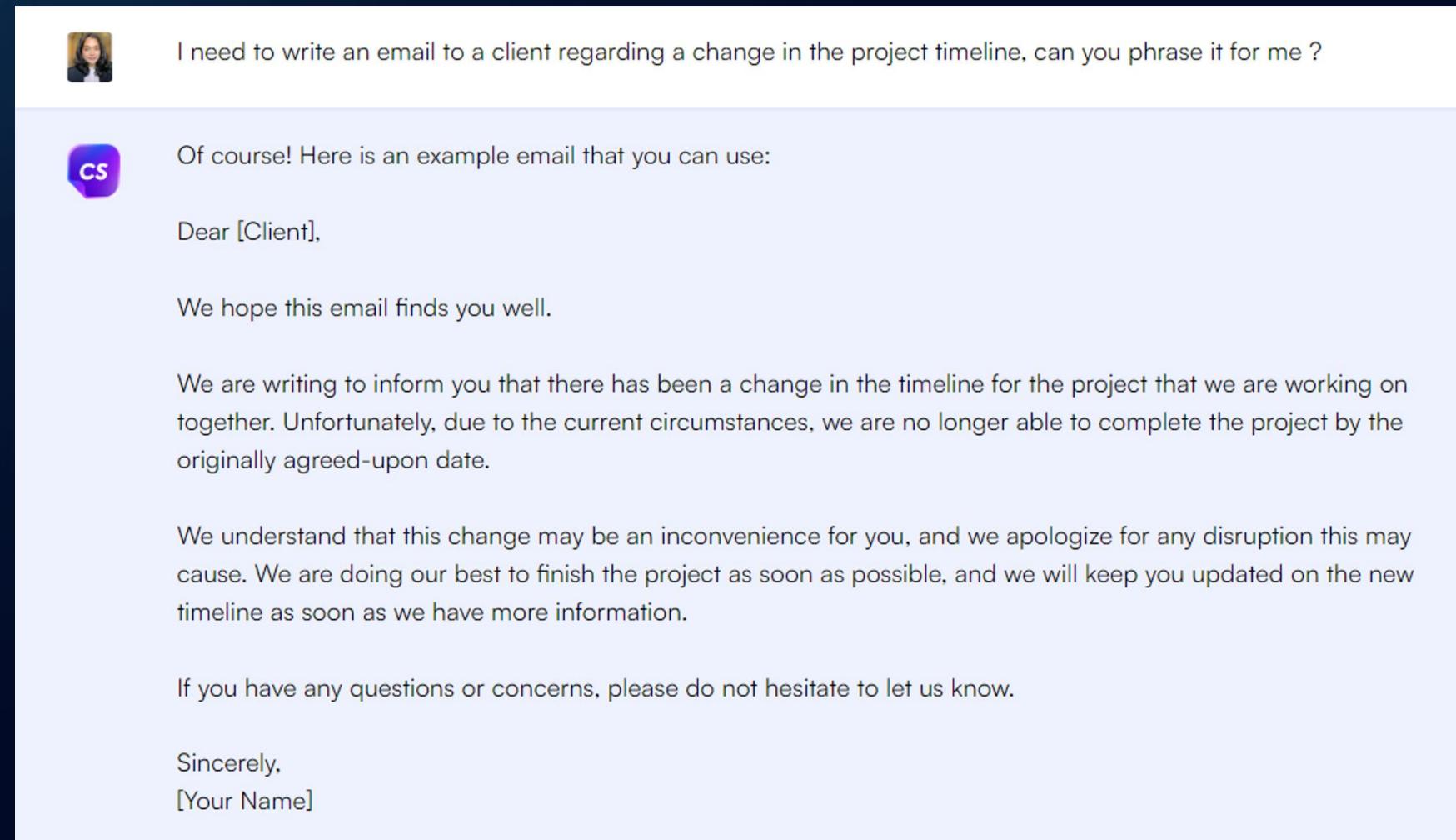
AI Powered Assistants

- AI powered assistants like virtual shopping assistants and chatbots help improve user experience while shopping online
- Using techniques like Natural Language Processing (NLP), conversations with users and tailored to their interests

>>> ChatGPT - The application of Natural Language Processing

ChatGPT is a natural language processing tool driven by AI technology that allows you to have human-like conversations and much more with the chatbot.

The language model can answer questions and assist you with tasks, such as composing emails, essays, and code.



I need to write an email to a client regarding a change in the project timeline, can you phrase it for me ?

Of course! Here is an example email that you can use:

Dear [Client],

We hope this email finds you well.

We are writing to inform you that there has been a change in the timeline for the project that we are working on together. Unfortunately, due to the current circumstances, we are no longer able to complete the project by the originally agreed-upon date.

We understand that this change may be an inconvenience for you, and we apologize for any disruption this may cause. We are doing our best to finish the project as soon as possible, and we will keep you updated on the new timeline as soon as we have more information.

If you have any questions or concerns, please do not hesitate to let us know.

Sincerely,
[Your Name]

>>> Midjourney - The application of Computer Vision

Midjourney is a text-to-image AI that can generate realistic and creative images from a user's description.

it has already been used to create a wide variety of images, including landscapes, portraits, and abstract art.



it has the potential to be a powerful tool for artists, designers, and creatives.



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All Photos are AI Generated

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>>> Openai Sora

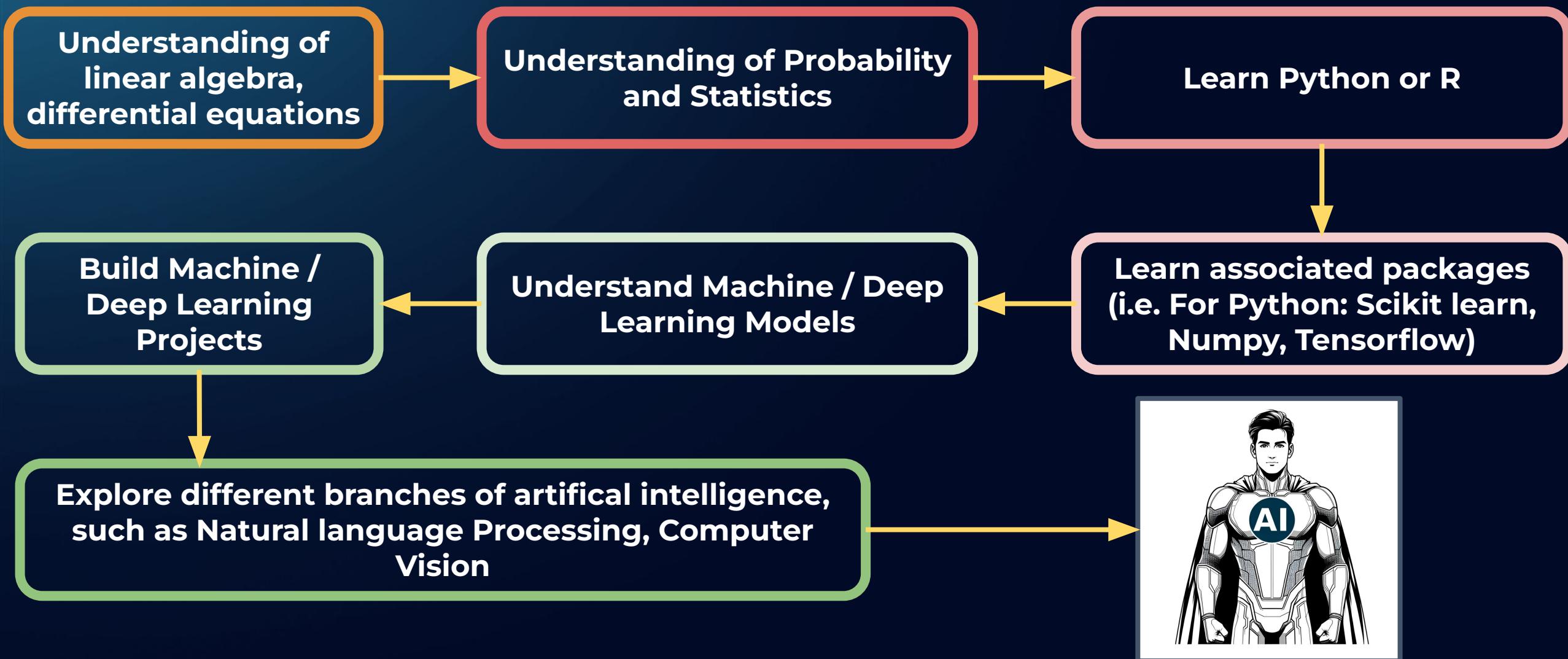


OpenAI Sora

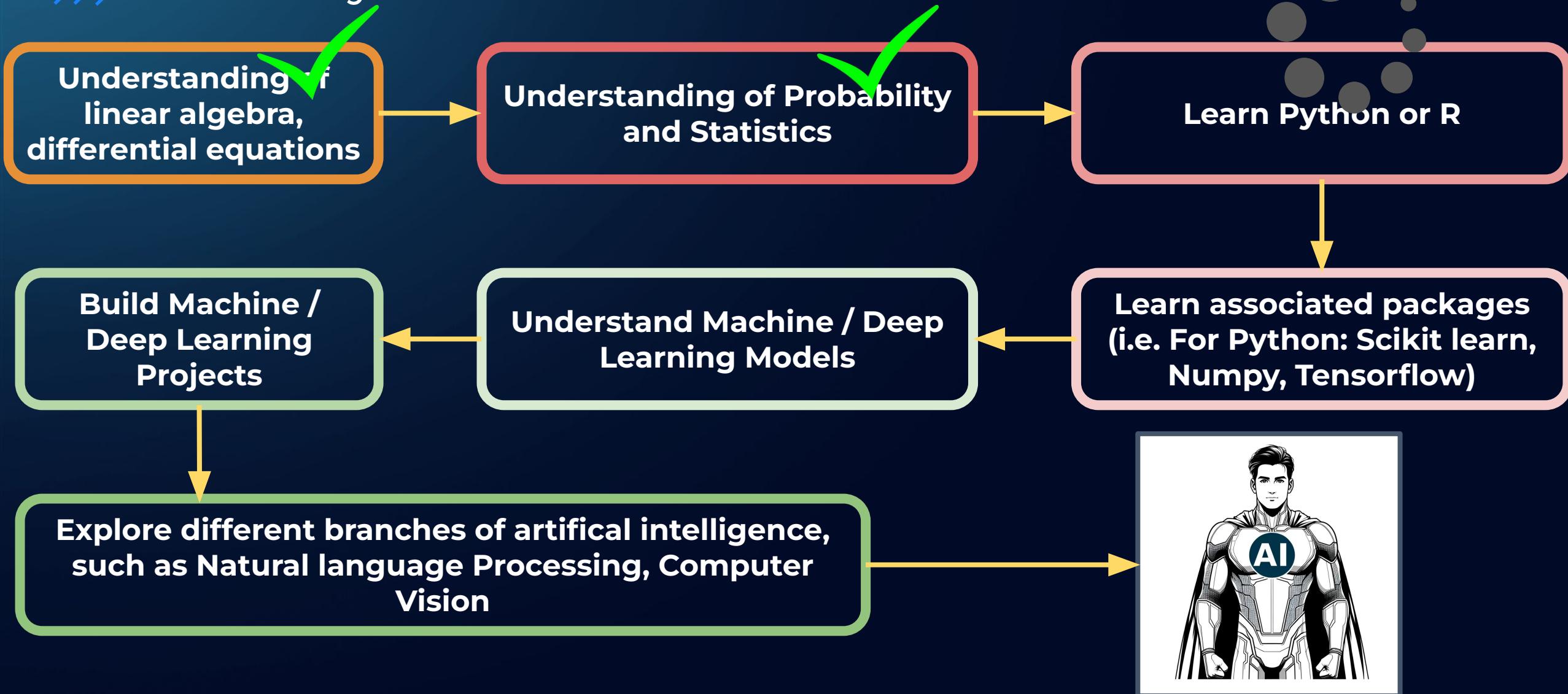
>>> Why AI now?

- Unprecedented Computational Power
 - Advances in hardware (GPUs, TPUs) enabling complex calculations at scale.
- Massive Data Availability
 - Digital era's data deluge from social media, IoT, and more, feeding AI algorithms.
- Breakthroughs in AI Research
 - Innovations in deep learning, natural language processing, and reinforcement learning.
- Consumer Demand for Smart Solutions
 - Growing expectation for personalized, AI-enhanced products and services.

>>> Pathway to Establish a Career AI and ML



>>> Pathway to Establish a Career AI and ML



>>> Future Job Opportunities

- **Leading technology firms like Apple, Adobe, and Zoom, as well as recruitment and consulting firms such as Diverse Lynx and SynergisticIT, are among the top employers for ML engineers.**
Source: (365 Data Science, 2023)
- **The demand for AI and ML jobs has surged by approximately 75% over the past four years, with predictions of continued growth.**
Source: (Simplilearn, 2024)
- **The demand for AI and ML specialists is expected to grow by 40% from 2023 to 2027, reflecting an addition of around 1 million jobs in the field.**
Source: (365 Data Science, 2023)
- **Top companies like Meta, Google, and Twitter offer even higher compensation, making ML engineering a lucrative career choice.**
Source: (365 Data Science, 2023).



**THANK
YOU!**