Introduction to LLMs

LARGE LANGUAGE MODELS FOR BUSINESS



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datacamp

The big AI picture

Past



University College London
https://www.ucl.ac.uk › graduate › taught-degrees › la...

Law LLM | Prospective Students Graduate

The **Masters of Law** (LLM) programme will enable you to acquire and develop expertise in a ...

University of Cambridge
https://www.postgraduate.study.cam.ac.uk › lwlwllll

Master of Law (LLM) - Postgraduate Study

The LLM, as a **master's** degree, is intended for those who wish to pursue further **legal** studies after completing their first degree in **law**, including those who ...

King's College London
https://www.kcl.ac.uk › postgraduate-taught › courses

Master of Laws LLM

Study the **Master of Laws** (LLM) in The Dickson Poon School of Law at King's College London.

The Open University
https://www.open.ac.uk › postgraduate › qualifications

F64 | Master of Laws (LLM)

Master of Laws (LLM) ... This qualification is designed to consider the role and place of law in an increasingly globalised world, and is suitable for law and non ...

Present



Machine Learning Mastery
https://machinelearningmastery.com › Blog

What are Large Language Models

19 May 2023 — There are multiple large language models developed. Examples include **the GPT-3 and GPT-4 from OpenAI, LLaMA from Meta, and PaLM2 from Google**.

Nvidia
https://www.nvidia.com › glossary › data-science › lar...

What are Large Language Models?

Large language models (LLMs) are **deep learning algorithms that can recognize, summarize, translate, predict, and generate** content using very large datasets.

NVIDIA Blog
https://blogs.nvidia.com › blog › 2023/01/26 › what-a...

What Are Large Language Models Used For?

26 Jan 2023 — Large language models **recognize, summarize, translate, predict and generate text and other forms of content**. ... AI applications are summarizing ...

Elastic
https://www.elastic.co › what-is › large-language-models

What is a Large Language Model?

A large language model (LLM) is **a deep learning algorithm that can perform a variety of natural language processing (NLP)** tasks. Large language models use ...

AI everywhere

- Integral part of our daily lives

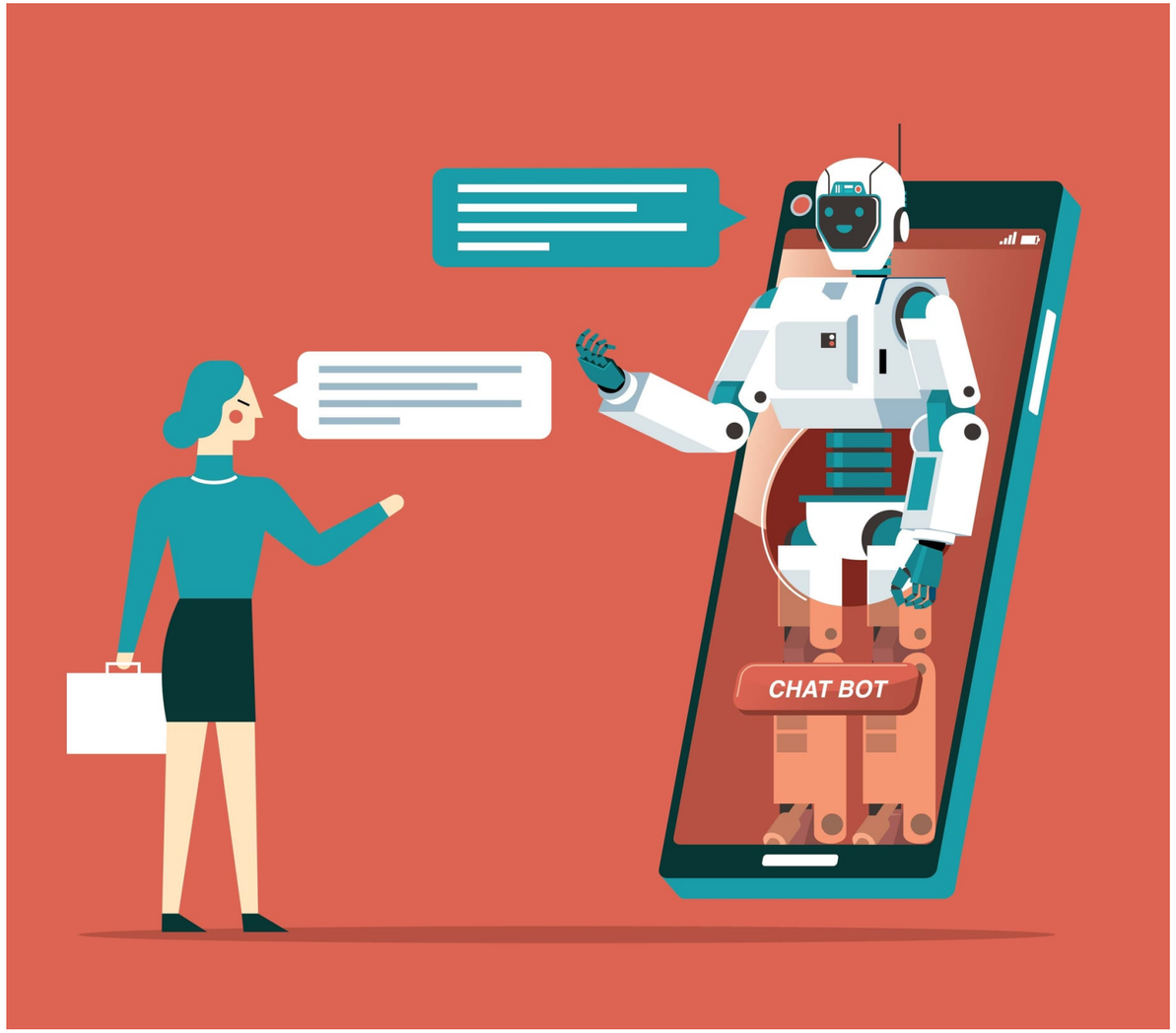


- AI everywhere



Let's talk LLMs

- LLM = Large Language Models
- Designed to:
  - Understand and generate human-like text
  - Revolutionize communication
  - Create content
  - Interpret data



Who put the 'Large' in LLMs?

- Extensive in scale:
  - Volume of training data
  - Computational resources
- Vast capabilities:
  - Understand human-like text
  - Generate human-like text



Revolutionizing language processing

Traditional AI:

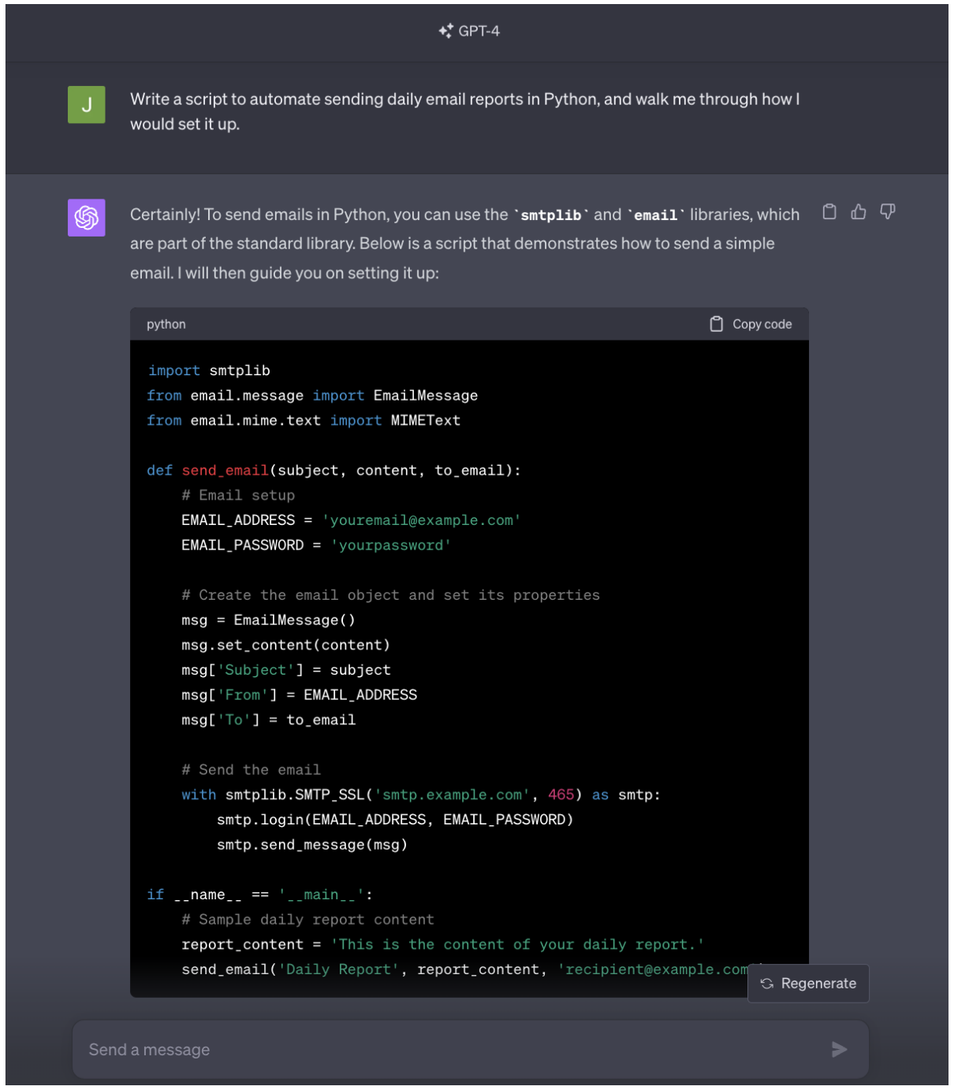
+ Content recommendations

– Understanding context

– Answering open-ended questions

GPT Series:

+ Human-like conversations

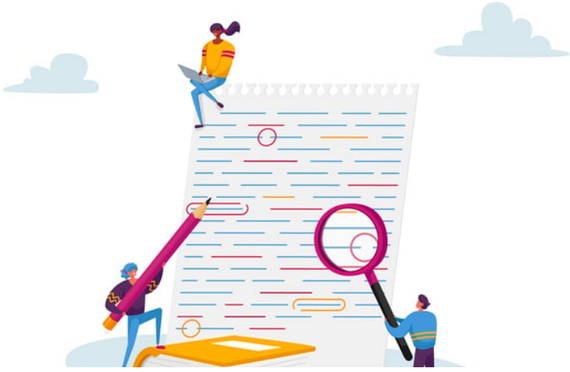


LLMs in Business

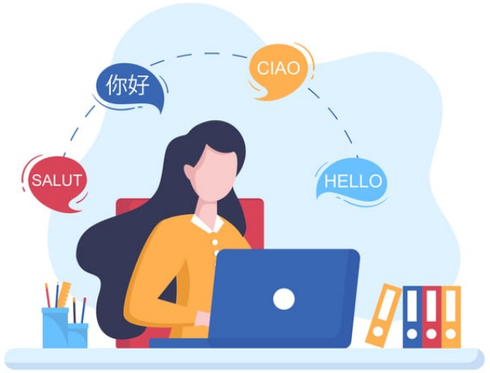
Sentiment Analysis



Identify key themes



Translate languages



Create content



Considerations with adopting LLMs

- Business benefits
- Ethical considerations
- Privacy considerations
- LLM adoption

Let's practice!

LARGE LANGUAGE MODELS FOR BUSINESS

LLMs in the business world

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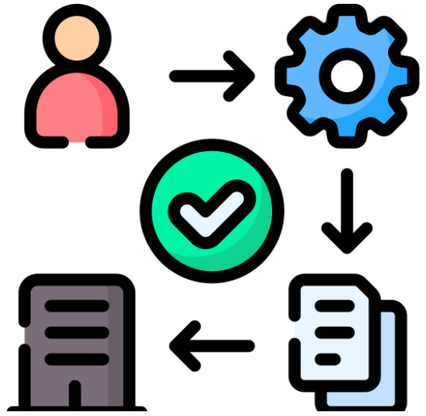
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Increasing adoption of LLMs

- Companies integrating LLMs into daily operations
- To understand AI tool opportunities
  - Dive into real-world use
  - For difference industries

Sky is the limit

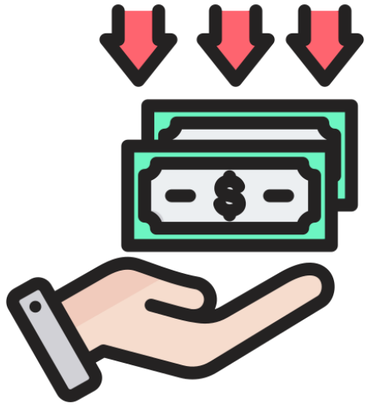
Enhance automation



Increase efficiency



Generate new revenue streams



Introduce innovative capabilities



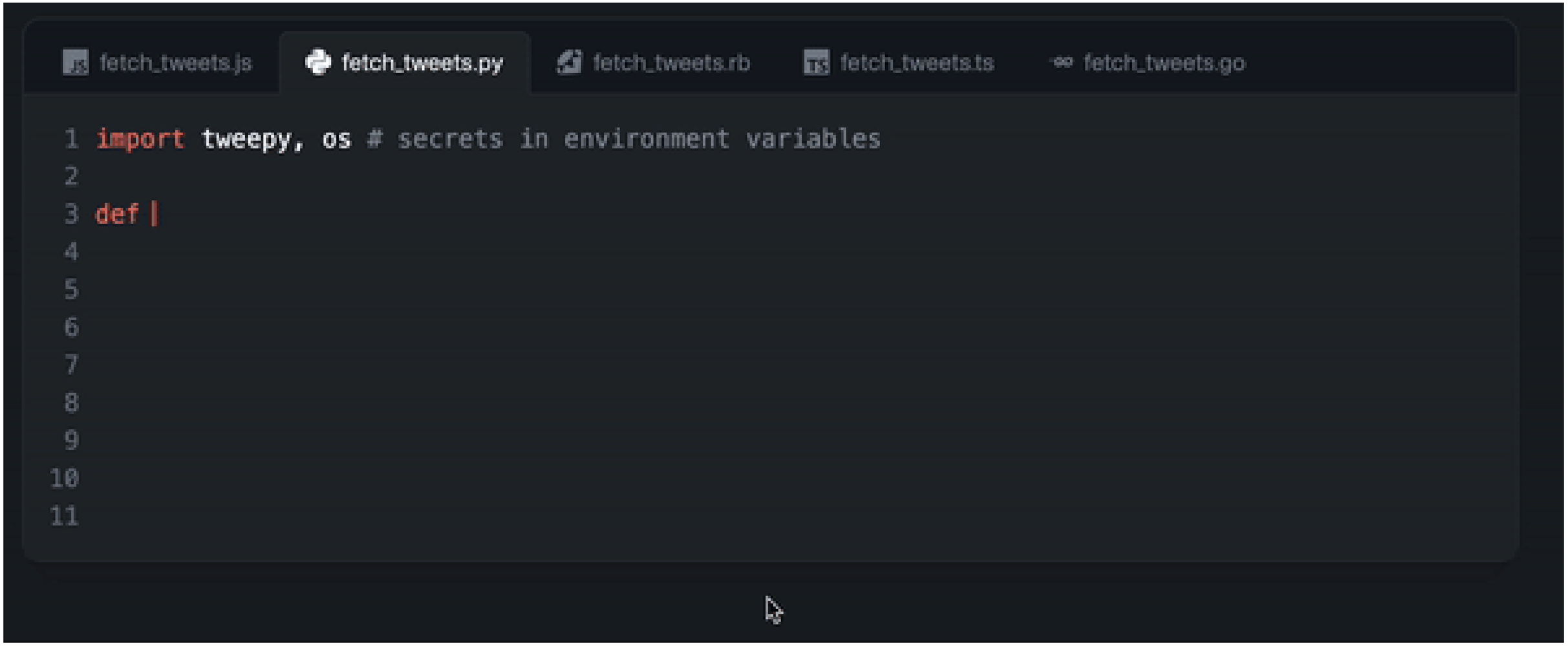
Introducing Microsoft Copilot

Mission: redefine workplace productivity

- Word - Reduce hours spent on:
  - Writing
  - Sourcing
  - Editing
- PowerPoint - Produce:
  - Impressive presentation templates
- Excel - Rapidly:
  - Analyze trends
  - Craft visualizations

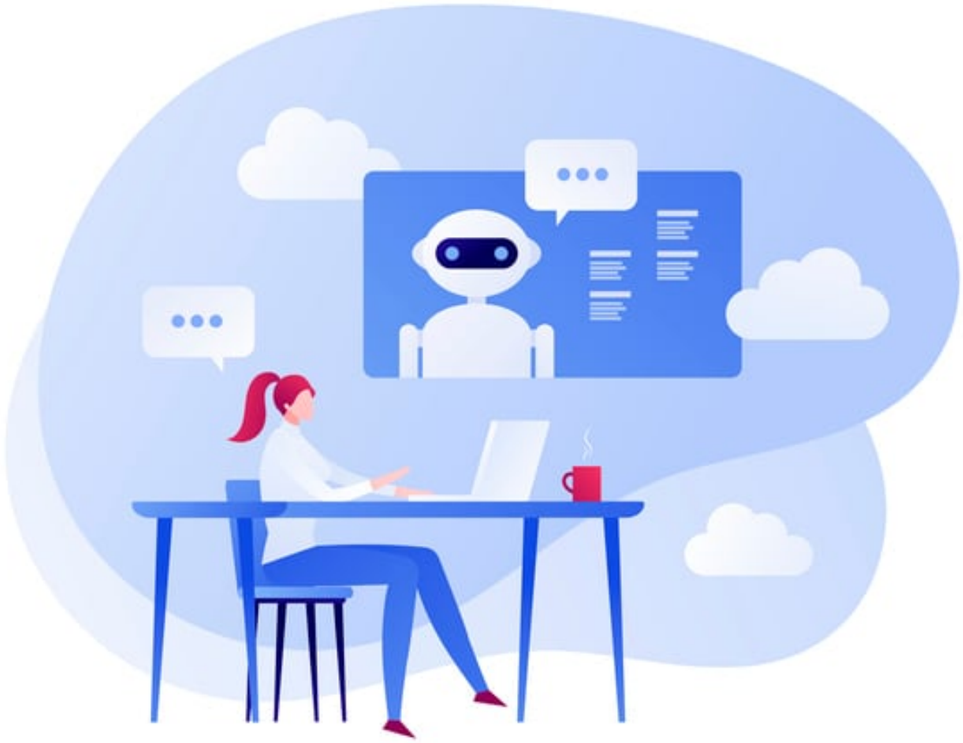


Github copilot



LLMs in Education

- Personalized Tutor
  - Ask questions
  - Receive guidance
  - Brainstorm ideas

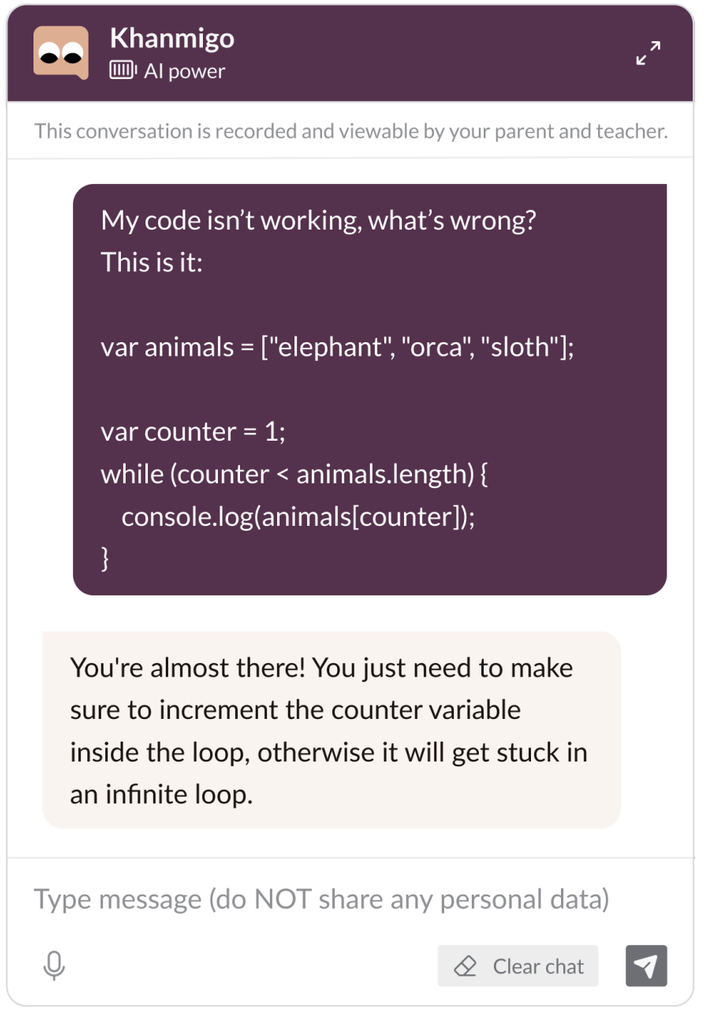


- Outputs: Customized learning materials:
  - Explanations
  - Examples
  - Exercises

Applied LLMs: Khan Academy

Enter Khanmigo

- LLM-enhanced tutor
  - Engage in math challenges
  - Hone vocabulary skills
  - Prepare for exams
- Interactive experiences with fictional/historical characters
  - Lady Macbeth
  - Benjamin Franklin



LLMs in Finance

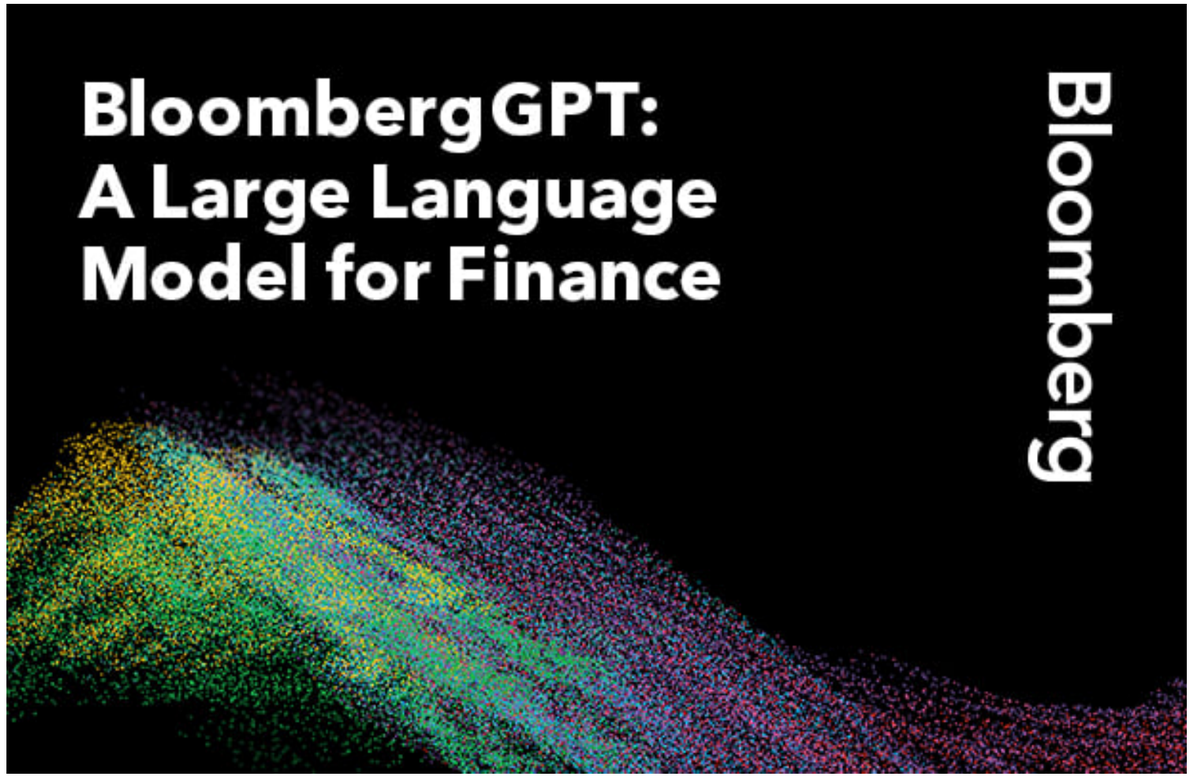
- Vast amount of unstructured data
  - Investment outlooks
  - Annual reports
  - News articles
  - Social media chatter
- Benefit:
  - Insights into market trends
  - Streamline investment management
  - Pinpoint new opportunities



Applied LLMs: BloombergGPT

- Specialized large language model tailored for the financial sector

- Model aims to improve financial tasks such as:
  - Sentiment analysis
  - Entity recognition
  - News classification



Let's practice!

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The journey of LLMs

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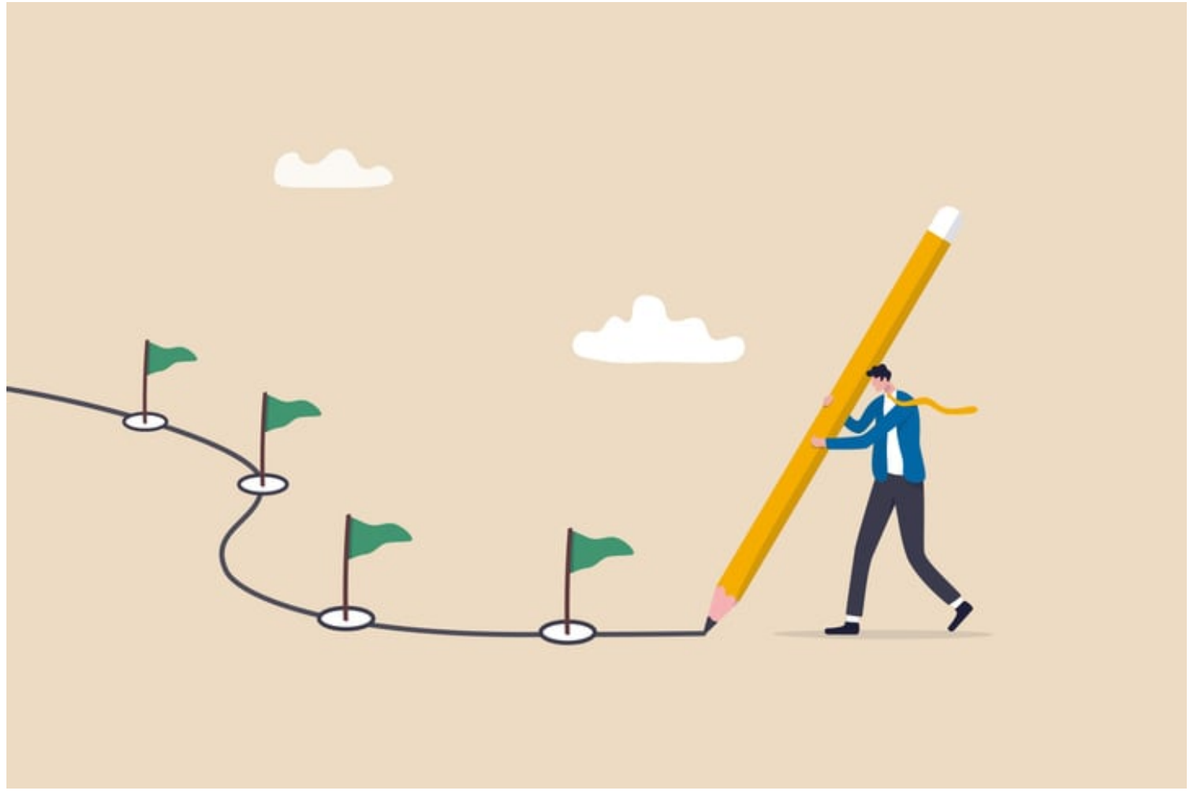


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From humble beginnings

- Humble beginnings as text-based algorithms
- Transformative force driving businesses
- Older technology couldn't understand human language
- Technology improved:
  - Could computers understand language like humans?



Early LLM models



- Creation of first LLMs in 2017
  - Basic, but promising
  - Worked for simple language patterns
- Continued LLM development
  - Understand sentence context
  - More precise outputs
- Useful for answering customer questions or business insights

Move quickly, but sustainably

- Businesses require fast and effective tools
- Drive to make LLMs faster and use less energy
  - Saves businesses money



Challenges

- Interactions with web data led to issues
  - Biases
  - Accuracy
- AI community aimed to solve these challenges
- Ensure LLMs use valuable information responsibly



Entering the arts

- LLMs entering the creative industries
- Usage in art, music, and literature
- They lack human emotions - only see patterns
- Projects to make them understand feelings better



New opportunities

- LLMs constantly changing and improving
- New opportunities for businesses



Let's practice!

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