

Fundamentals of Machine Learning

Introduction

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November 15, 2023

Introduction

Introduction



- What is a Machine Learning?
- What is an Artificial Intelligence?
- Why should we study it?

Introduction



Machine Learning:

- Processes data from different sources.
- Predicts events based on models, looks for connections, sets probabilities for different events.

Artificial Intelligence:

- Based on the output of machine learning, it defines the actions to be performed.
- Mimics human behavior.
- Modifies its behavior based on the history of the effects of past actions evaluated by machine learning.

🏠 Parametry Příslušenství Foto a video 4 Recenze 9 Alternativy 6 Poradna 22

4,9

★★★★★
Hodnotilo 20 zákazníků

[Napsat recenzi](#)

5 ★	18x
4 ★	1x
3 ★	1x
2 ★	0x
1 ★	0x

🛒 **500+**
zákazníků již zakoupilo

👍 **95 %**
zákazníků doporučuje


★ **7**
[uživatelských recenzí](#)

✖ **1,00 %**
[nízká reklamovanost](#)

Nejčastěji dohromady zakoupené zboží a příslušenství


[Další příslušenství](#)

-14%




★★★★★
G.SKILL 64GB KIT DDR4 4000MHz CL18 Ripjaws V
~~10 989,-~~ **9 499,-**

[Přidat](#)



★★★★☆
Fractal Design Meshify 2 XL Black TG Dark
~~5 099,-~~ **4 931,-**


[Přidat](#)



★★★★★
ASUS ROG STRIX X570-E GAMING
~~7 869,-~~ **7 558,-**

[Přidat](#)


-10%



★★★★★
Be quiet! DARK ROCK PRO 4
~~2 299,-~~ **2 071,-**

[Přidat](#)

-5%



★★★★★
ASUS TUF GAMING X570-PRO (WI-FI)
~~6 249,-~~ **6 024,-**

[Přidat](#)



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- san francisco weather**
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- san francisco giants**
- san fernando valley**
- san francisco state university**
- san francisco hotels**
- san francisco 49ers**
- san fernando**

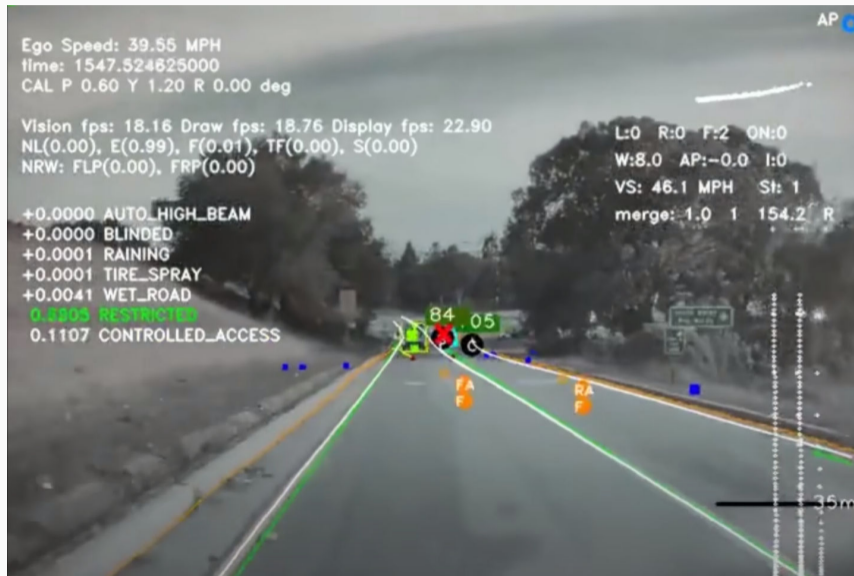
Introduction



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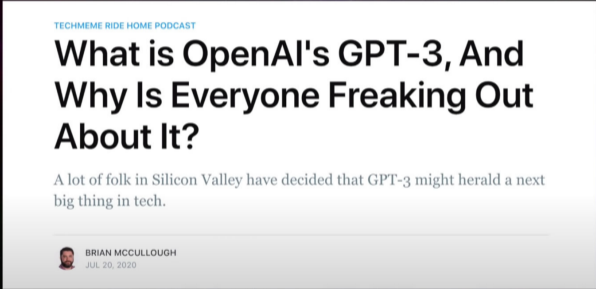


Introduction



Introduction






TECHMEME RIDE HOME PODCAST

What is OpenAI's GPT-3, And Why Is Everyone Freaking Out About It?

A lot of folk in Silicon Valley have decided that GPT-3 might herald a next big thing in tech.

 BRIAN MCCULLOUGH
JUL 20, 2020

A screenshot of a podcast article preview. The background is a dark space with stars. The article title is in large, bold black font. Below the title is a short paragraph of text. At the bottom left, there is a small circular profile picture of a man, followed by his name and the date of publication. A small green arrow icon is visible in the bottom right corner of the image frame.

GPT-3

- 175 billion parameters (700 GB of memory to store it)
- It would require 355 years and \$4,600,000 to train on nVidia V100.

GPT-4

- ?? trillion parameters

Introduction

The screenshot shows the OpenAI Playground interface. At the top, there are navigation links for Overview, Documentation, Examples, and Playground. On the right, there are links for Upgrade, Help, and Personal. The main area is titled "Playground" and contains a text input field with the prompt: "Create a lecture synopsis that explain a machine learning algorithms". Below the input field, the model's response is displayed, which is a list of machine learning algorithm types: supervised learning, unsupervised learning, and reinforcement learning. The right sidebar contains various settings for the model, including the model name (text-davinci-002), temperature (0.7), maximum length (256), top P (1), frequency penalty (0), presence penalty (0), best of (1), and options to inject start and restart text (both checked).

Overview Documentation Examples Playground Upgrade Help Personal

Get started

Enter an instruction or select a preset, and watch the API respond with a completion that attempts to match the context or pattern you provided.

You can control which model completes your request by changing the model.

KEEP IN MIND

- Use good judgment when sharing outputs, and attribute them to your name or company. [Learn more.](#)
- Requests submitted to our models may be used to train and improve future models. [Learn more.](#)
- Our default models' training data cuts off in 2021, so they may not have knowledge of current events.

Playground

Load a preset... Save View code Share ...

Create a lecture synopsis that explain a machine learning algorithms

In machine learning, an algorithm is a set of instructions for a computer to follow in order to complete a task. There are many different types of machine learning algorithms, each designed for a specific purpose. Some common machine learning algorithms include:

- supervised learning algorithms, which are used to create models that can predict future events based on past data;
- unsupervised learning algorithms, which are used to find patterns in data;
- reinforcement learning algorithms, which are used to create models that learn from experience and improve over time.

Model

Model: text-davinci-002

Temperature: 0.7

Maximum length: 256

Stop sequences: Enter sequence and press Tab

Top P: 1

Frequency penalty: 0

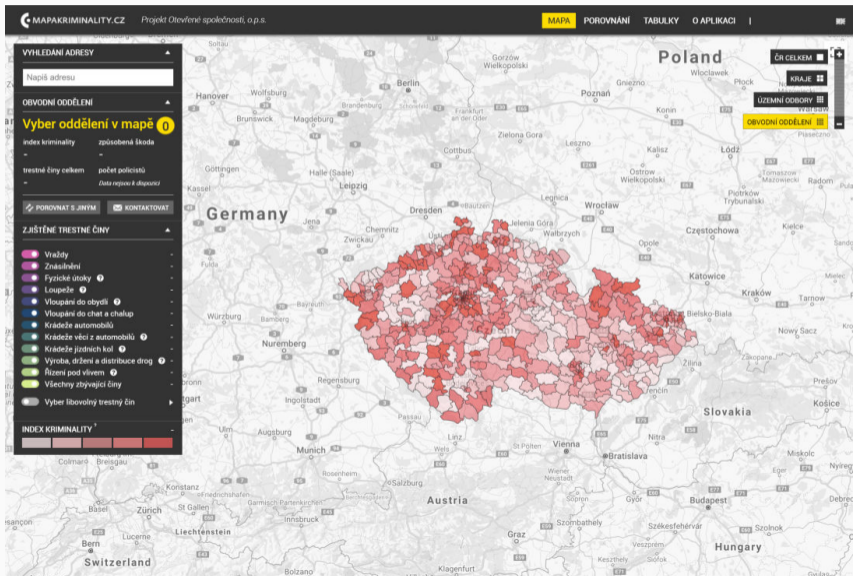
Presence penalty: 0

Best of: 1

Inject start text:

Inject restart text:

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Introduction

The screenshot shows the DeepL Translator website. At the top, there is a navigation bar with links for 'DeepL Translator', 'DeepL Pro', 'Why DeepL?', 'API', 'Plans and pricing', and 'Apps' (with a 'FREE' badge). A 'Start free trial' button and a 'Login' link are also present. Below the navigation bar, there are two main options: 'Translate text' (29 languages) and 'Translate files' (.pdf, .docx, .pptx). The main content area shows a translation interface with 'Czech (detected)' on the left and 'English' on the right. A 'Glossary' button is visible in the top right of the interface. The translation of 'Strojové učení' is displayed in a box with a close button (X) in the top right corner. The Czech text is on the left, and the English translation is on the right. At the bottom of the interface, there are icons for a speaker, thumbs up, thumbs down, a document, and a share icon.

DeepL Translator DeepL Pro Why DeepL? API Plans and pricing Apps **FREE** [Start free trial](#) Login

[Translate text](#)
29 languages

[Translate files](#)
.pdf, .docx, .pptx

Czech (detected) English [Glossary](#)

Strojové učení ×

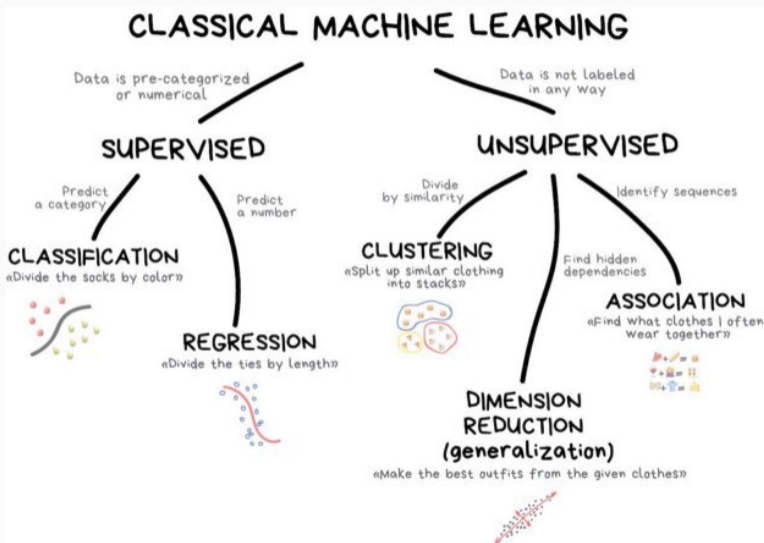
Zpracovává data z různých zdrojů.
Na základě modelů predikuje události, hledá souvislosti,
nastavuje pravděpodobnosti různým dějům.
Vyhodnocuje efekt použitých pravidel v minulosti.

Umělá inteligence
Na základě výstupu strojového učení definuje akce, které
se mají realizovat.
Napodobuje chování člověka.
Své chování upravuje na základě historie efektů
jednotlivých kroků v minulosti vyhodnocených strojovým
učením.

Machine Learning
Processes data from different sources.
Predicts events based on models, looks for connections,
sets probabilities for different events.
Evaluates the effect of rules used in the past.

Artificial intelligence
Based on the output of machine learning, it defines the
actions to be performed.
Mimics human behaviour.
It modifies its behaviour based on the history of the
effects of past actions evaluated by machine learning.

🔊 👍 👎 📄 🔗



Why should I study machine learning? (GPT-3)

- Machine learning is a field of computer science that gives computers the ability to learn without being explicitly programmed.
- Machine learning is a rapidly growing field with many applications in areas such as big data, predictive analytic, and image recognition.

Why should I study machine learning? (GPT-3)

- Machine learning is a subfield of artificial intelligence (AI) that is concerned with the design and development of algorithms that can learn from and make predictions on data. Machine learning algorithms are used in a variety of applications, including email filtering, detection of network intruders, and computer vision.

Questions