Digital humanities

Umělá inteligence, umělá estetika

Jindřich Marek

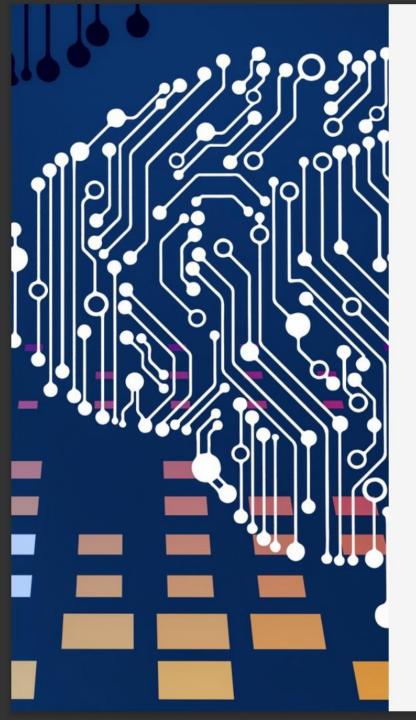
Pojmy (na základě četby)

- umělá inteligence (artificial intelligence)
- umělá estetika (artificial aesthetics)

Turingův test vs. test Lovelace







Turing Vs Lovelace Test

Turing

benchmark for assessing the ability of a machine to exhibit human-like intelligence, particularly in natural language understanding and conversation

Lovelace

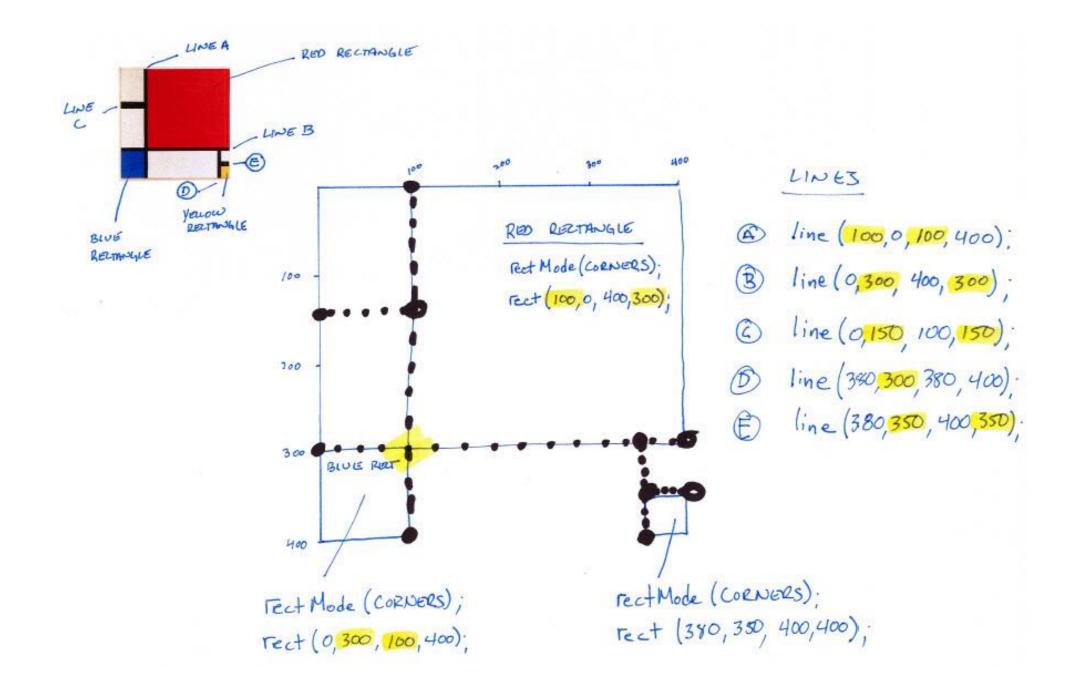
The AI must generate a genuinely creative and novel piece of content, such as an original poem, story, artwork, or musical composition, demonstrating its ability to create something unique.

Turing

a human evaluator engages in a text-based conversation with both a human and a machine without knowing which is which.

Lovelace

The AI should exhibit an understanding of the content it creates. It should be able to explain the reasoning behind its creative output, including the choices it made during the creative process.



Služby s využitím AI (kategorie)

- chatboti
- tvorba obsahu
- kontrola gramatiky a stylistiky
- tvorba a úprava videa
- generování obrázků
- generování hlasu a hudby
- organizace znalostí
- správa úkolů a projektů
- asistenti pro schůzky (i přepis)

- plánování
- správa e-mailových schránek
- vytváření prezentací
- automatizace činností
- zaměříme se na užitečné příklady...

Úprava textu

EditGPT

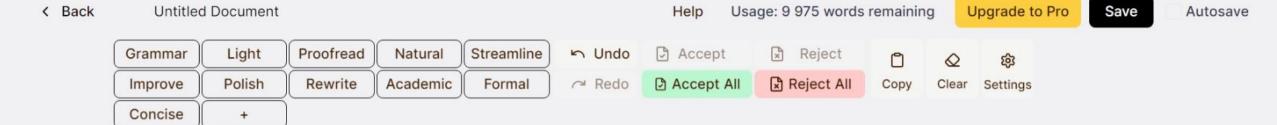
- https://editgpt.app
- proofreading, vyznačuje změny
- i jako doplněk do prohlížeče (srovnání textů v ChatGPT)

OpenAI Translator

- https://github.com/openai-translator/openai-translator/openai-translator
- překlady, úpravy textu
- možnost vytvoření vlastního promptu
- využívá OpenAI API

Aibtra

- https://github.com/aibtra/aibtra
- využívá OpenAI API



After 1612, Rudolf's personal library and the books stored in the Kunstkammer began to disperse. Some of the books were taken to Vienna by Rudolf's successors to the throne. Especially active in this respect was Matthias, who Matthias was particularly active in this regard, as he continued to consolidate the Habsburg collections, and implementing an entired a completely new concept. The imperial collections in Vienna were primarily intended to glorify the Habsburg family, which most likely influenced the selection of artefacts that were to be transported from Prague Castle to Vienna. Unfortunately, we have no information as to regarding the number of such artefacts and or other circumstances of surrounding the transfers. However, judging frombased on the Rudolf's II books that are preserved in the former Habsburg court library, it appears that priority was given to books dedicated to Rudolf II, which tended to glorify the idea of empire and the monarch in their dedications, and well as some of the more ornate manuscripts. Apart from In addition to the Imperial Library in Vienna, however, many of Rudolf's books found their way into Matthias's personal library. This Although it is now dispersed, but an inventory from 1619 has survived. It, which contains 884 titles, and give. Based on their subjects of these books and the affiliation of some of their authors to the Rudolfine court, some of the books clearly seem to have come it is clear that some of them originated from Rudolf's Prague library. In the case of a few volumcases, their original location of the volumes in Prague has actually been documented, such as in the case of with a manuscript of Tycho Brahe. NCurrently, nothing certain is yet known about the fate of Matthias's private library, which was claimed by Archduke Albert after his death. However, some surviving volumes in the Austrian National Library suggest that future searches for Matthias's (and therefore Rudolf's) books should probablikely focus











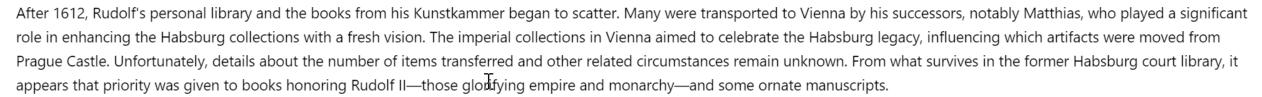


After 1612, Rudolf's personal library and the books stored in the Kunstkammer began to disperse. Some of the books were taken to Vienna by Rudolf's successors to the throne. Especially active in this respect was Matthias, who continued to consolidate the Habsburg collections, implementing an entirely new concept. The imperial collections in Vienna were primarily intended to glorify the Habsburg family, which most likely influenced the selection of artefacts that were to be transported from Prague Castle to Vienna. Unfortunately, we have no information as to the number of such artefacts and other circumstances of the transfers. However, judging from Rudolf's books preserved in the former Habsburg court library, priority was given to books dedicated to Rudolf II, which tended to glorify the idea of empire and the monarch in their dedications, and some of the more ornate manuscripts. Apart from the Imperial Library in Vienna, however, many of Rudolf's books found their way to Matthias's personal library. This is now dispersed, but an inventory from 1619 has survived. It contains 884 titles, and given their subjects and the affiliation of some of their authors to the Rudolfine court, some of the books clearly seem to have come from Rudolf's Prague library. In the case of a few volumes, their original location in Prague has actually been documented, such as in the case of a manuscript of Tycho Brahe. Nothing certain is yet known about the fate of Matthias's private library, which was claimed by Archduke Albert after his death; some surviving volumes in the Austrian National Library suggest that future searches for Matthias's (and therefore Rudolf's) books should probably focus on this institution.









Besides being housed at the Imperial Library in Vienna, many of Rudolf's volumes ended up in Matthias's private collection. Although this collection is now scattered, an inventory from 1619 still exists listing 884 titles; several evidently originated from Rudolf's Prague library based on their subjects and authors' connections to the Rudolfine court. Some volumes have been definitively traced back to Prague, including a manuscript by Tycho Brahe.

The ultimate fate of Matthias's private library remains unclear following its claim by Archduke Albert after Matthias's death. However, existing volumes at the Austrian National Library hint that future research into Matthias's (and thus Rudolf's) books should likely concentrate on this institution.

```
case 'polishing':
    rolePrompt = 'You are an expert translator, translate directly without explanation.'
    commandPrompt = `Please edit the following sentences in ${sourceLangName} to improve clarity, conciseness, and coherence, making them match the expression of native speakers.
    contentPrompt = query.text
    break
case 'summarize':
    rolePrompt =
        "You are a professional text summarizer, you can only summarize the text, don't interpret it."
    commandPrompt = oneLine`
    Please summarize this text in the most concise language
    and must use ${targetLangName} language!`
    contentPrompt = query.text
    break
case 'analyze':
    rolePrompt = 'You are a professional translation engine and grammar analyzer.'
    commandPrompt = oneLine`
    Please translate this text to ${targetLangName}
    and explain the grammar in the original text using ${targetLangName}.`
    contentPrompt = query.text
    break
case 'explain-code':
    rolePrompt =
        'You are a code explanation engine that can only explain code but not interpret or translate it. Also, please report bugs and errors (if any).'
```

➤ Submit Default ∨ Proofread (GPT-4) ∨ ☑ Apply

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Paste and Submit

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S Before/After 🏂 Dark Mode

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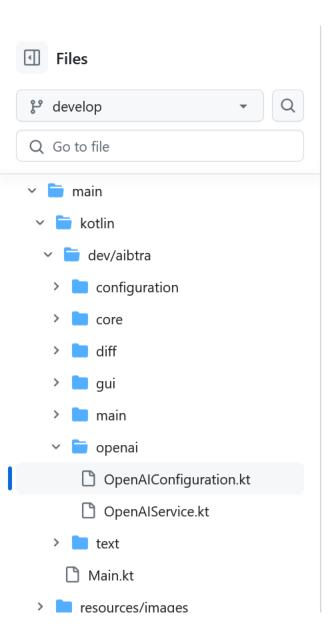
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enhance the Habsburg collections, i<mark>ntroduc</mark>ing a new concept. The imperial collections in Vienna were primarily meant to honor the Habsburg family, which likely influenced choice of artifacts to be moved from Praque Castle to Vienna. Unfortunately, we do not have details on the number of these artifacts or the circumstances of the

transfers. However, pased on Rudolf's books found in the former Habsburg court library, books dedicated to Rudolf II, which praised the idea of empire and the

monarch in their dedications, along with some elaborate manuscripts, were

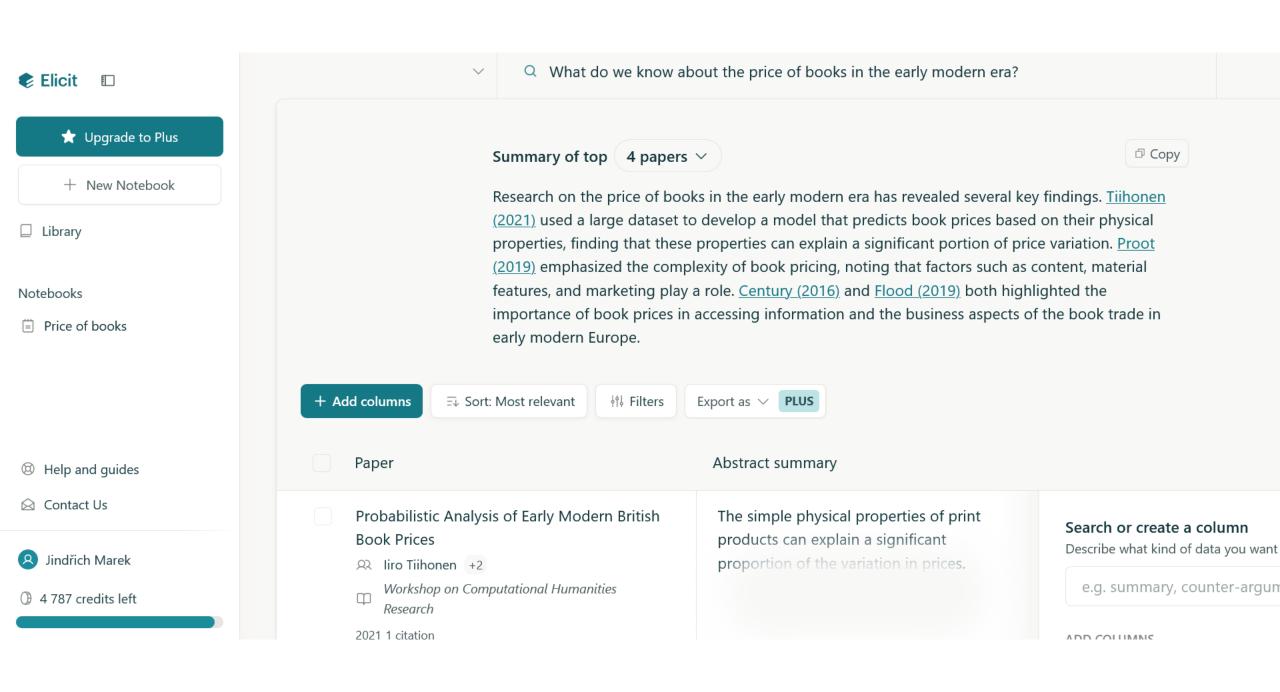
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```
aibtra / src / main / kotlin / dev / aibtra / openai / OpenAlConfiguration.kt
                                                                                                                                  ↑ Top
                                                                                                             Raw 🖵 🕹
         Blame 48 lines (39 loc) · 1.57 KB
Code
    21
                           private val CORRECTION GPT 3 5 TURBO = Profile(
    22
                                   PROOFREAD 3 5, "gpt-3.5-turbo",
    23
                                    "Correct typos and grammar in the markdown following " +
    24
                                                    "AND stay as close as possible to the original " +
    25
                                                    "AND preserve block quotes and code block " +
    26
                                                    "AND preserve the detected language:"
    27
    28
    29
                           private val CORRECTION GPT 4 = Profile(
    30
                                    "Proofread (GPT-4)", "gpt-4",
    31
                                    "Correct typos and grammar in the markdown following " +
    32
                                                   "AND stay as close as possible to the original " +
    33
                                                    "AND do not change the markdown structure " +
    34
                                                    "AND preserve the detected language:"
    35
    36
    37
                           private val TO STANDARD ENGLISH = Profile(
    38
                                    "To Standard English (GPT-3.5 Turbo)", "gpt-3.5-turbo",
    39
                                    "Rewrite to Standard English " +
    40
                                                    "BUT stay as close as possible to the original:"
    41
    42
    43
                           override fun name(): String = "openai"
    44
    45
```

Práce se zdroji

- Elicit
 - https://elicit.com
 - služby pro literature review/discover
- ChatGPT 4
 - asistenti

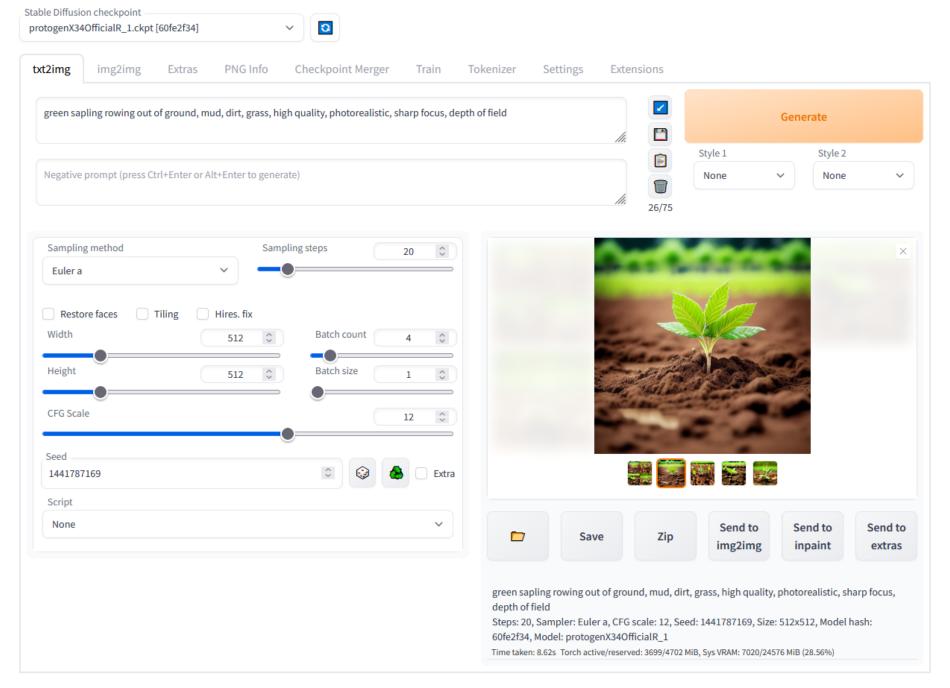


Vytváření a úpravy obrázků

- volně dostupné: Stable Diffusion
 - https://github.com/AUTOMATIC1111/stable-diffusion-webui

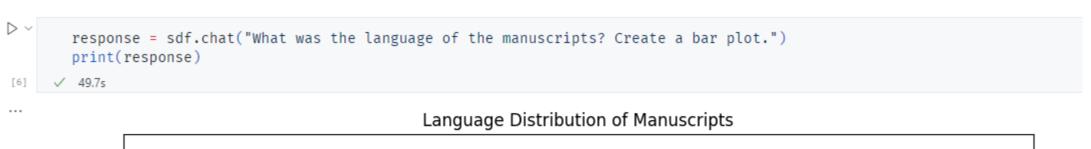
• komerční: DALL·E 3, Midjourney

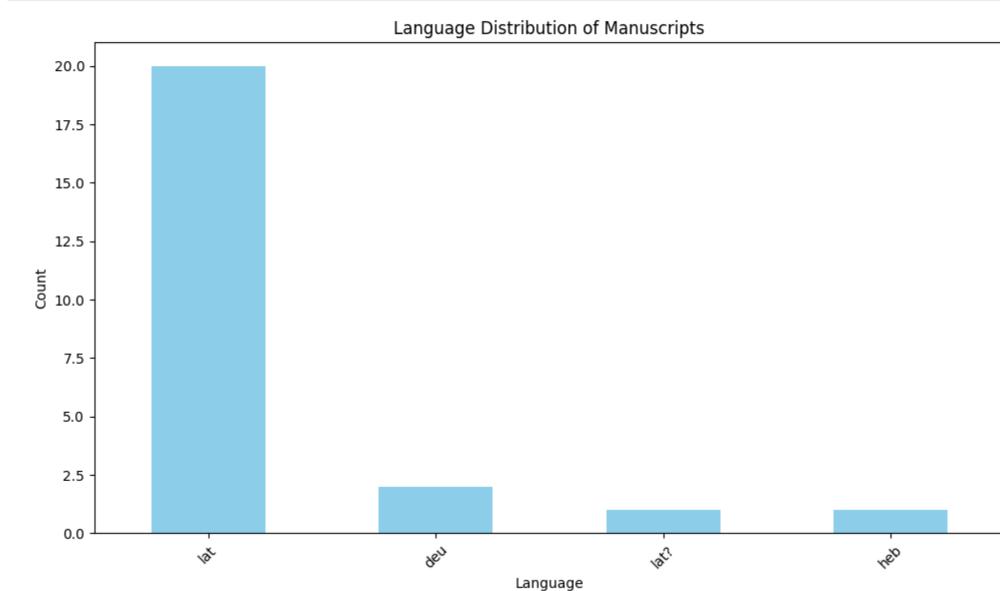
- další webové služby
 - Civitai https://civitai.com
 - Dreamstudio https://beta.dreamstudio.ai
 - ...



Analýza dat

- pandasai
 - https://pandas-ai.com
 - využívá vlastní model, možnost i OpenAI API
- ChatGPT 4
 - asistenti



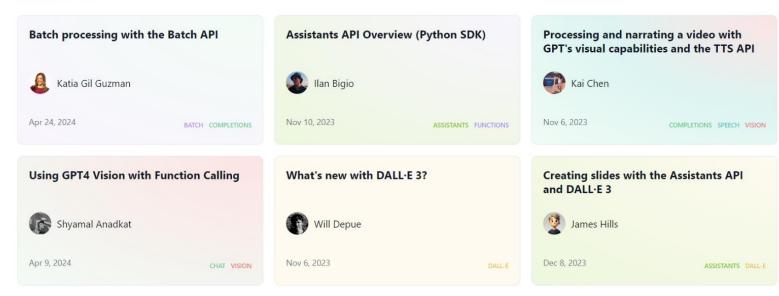


Využití OpenAI API

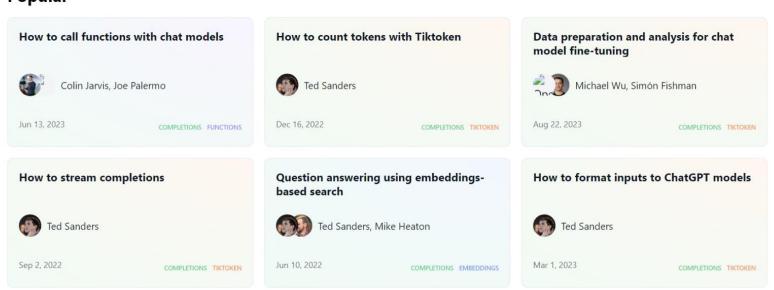
- přístup k jazykovému modelu přes aplikační rozhraní
- definované obecně
 - ChatGPT 4/3.5 nebo lokální model kdekoliv
- https://cookbook.openai.com

New APIs

(S) OpenAl Cookbook

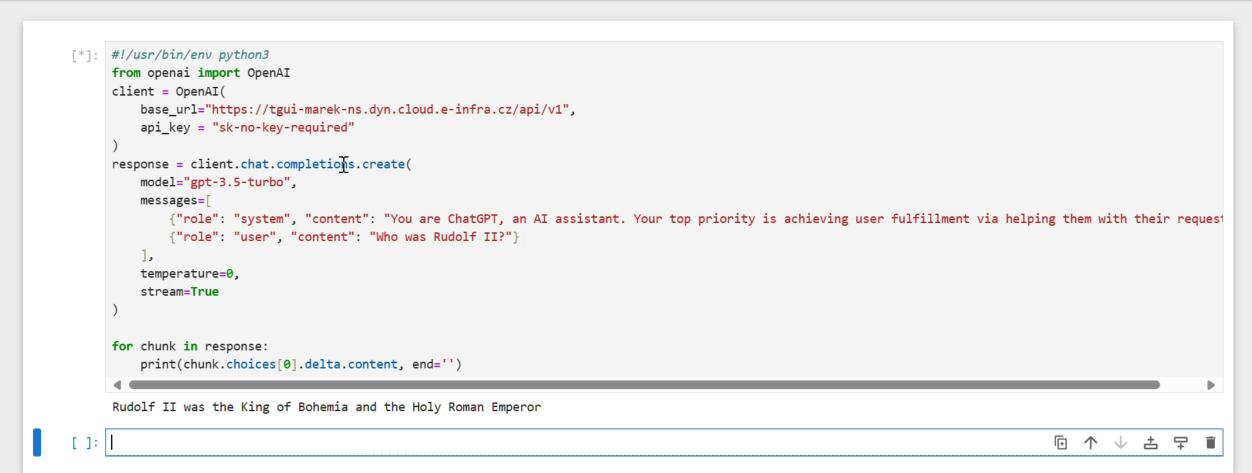


Popular





🖪 + 🛠 🖺 🖺 ▶ ■ C 🕪 Code 🗸 Tython 3 (ipykernel) 🌑



Ladění modelů

- proces, při kterém se velký jazykový model dále trénuje na konkrétním, často menším souboru dat
- cíl: přizpůsobení obecných schopností LLM specifickým potřebám
- výpočetně náročné

- např. https://github.com/hiyouga/LLaMA-Factory
 - Odkaz na Colab notebook (Llama 3 8B)



Proces ladění modelů

- výběr modelu
 - vzhledem ke složitosti úlohy a velikosti dat
- výběr datasetu (datové sady)
 - reprezentativní pro konkrétní
- nastavení hyperparametrů
 - rychlost učení, velikost dávky, počet epoch
- samotné ladění
 - sledování výkonu
- ověřování
 - jak dobře model pracuje s neznámými daty

