7 - Large-Language Models Python

February 24, 2024

```
[1]: import openai
     import os
     import wikipedia
```

1 1.) Set up OpenAI and the enviornment

```
[2]: apikey = "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"
```

```
[3]: openai.api_key = apikey
```

```
[4]: client = openai.OpenAI(
         api_key = apikey
     )
```

2 2.) Use the wikipedia api to get a function that pulls in the text of a wikipedia page

```
[5]: page_titles = ["Artificial Intelligence","UCLA"]
```

```
[6]: page_title = page_titles[0]
```

```
[7]: search_results = wikipedia.search(page_title)
```

```
[8]: page = wikipedia.page(search_results[0])
```

```
[9]: # page.content
     def get_wikipedia_content(page_title):
         search_results = wikipedia.search(page_title)
         page = wikipedia.page(search_results[0])
         return(page.content)
```

```
[10]: content = get_wikipedia_content(page_title)
```

3 3.) Build a chatgpt bot that will analyze the text given and try to locate any false info

```
[11]: chat_completions = client.chat.completions.create(
          model = "gpt-3.5-turbo",
          messages = [
          {"role": "system", "content": "I will be giving you an article. I am␣
       ↪looking for false information. I want to capture all potentially false info,␣
       ↪if there is even small potential for it to be wrong, please return it.␣
       ↪Please concisely list only the false information found with numbers. If␣
       ↪there is no false information only return 'DONE'."},
          {"role": "user", "content": content[:8180]}]
      )
```

```
[12]: print(chat_completions.choices[0].message.content)
```

```
1. Alan Turing was the first person to conduct substantial research in the field
that he called machine intelligence.
2. Artificial intelligence was founded as an academic discipline in 1956.
3. Funding and interest vastly increased after 2012 when deep learning surpassed
all previous AI techniques, and after 2017 with the transformer architecture.
4. The AI spring of the early 2020s saw companies, universities, and
laboratories overwhelmingly based in the United States pioneering significant
advances in artificial intelligence.
```

```
[13]: def chatgpt_error_correction(text):
          chat_completions = client.chat.completions.create(
              model = "gpt-3.5-turbo",
              messages = [
              {"role": "system", "content": "I will be giving you an article. I am␣
       ↪looking for false information. I want to capture all potentially false info,␣
       ↪if there is even small potential for it to be wrong, please return it.␣
       ↪Please concisely list only the false information found with numbers. If␣
       ↪there is no false information only return 'DONE'."},
              {"role": "user", "content": text[:8180]}]
          )
          print(chat_completions.choices[0].message.content)
```

4 4.) Make a for loop and check a few wikipedia pages and return a report of any potentially false info via wikipedia

```
[14]: page_titles = ["Artificial Intelligence","UCLA","Rain"]
```

```
[15]: for page_title in page_titles:
          try:
```

```
        print("_____"+page_title)
        content = get_wikipedia_content(page_title)
        chatgpt_error_correction(content)
    except:
        print("ERROR")
```

_____Artificial Intelligence
1. Artificial intelligence was founded as an academic discipline in 1956.
2. The transformer architecture significantly increased funding and interest in
AI after 2017.
3. The term "AI spring" in the early 2020s marked significant advances driven by
the United States.
4. Alan Turing was the first person to conduct substantial research in machine
intelligence.
5. Humans rarely use step-by-step deduction when solving problems.
6. Early AI research could model most human problem-solving behaviors.
7. Knowledge bases primarily need to represent objects, properties, categories,
and relations.
8. Supervised learning does not require human labeling of input data.
_____UCLA
1. UCLA evolved from the Southern Branch of the California State Normal School
in San José.
2. UCLA was transferred to the University of California system in 1919, making
it the second-oldest campus in the system after UC Berkeley.
3. UCLA received 174,914 undergraduate applications for Fall 2022, making it the
most applied-to university in the United States.
4. UCLA has won a total of 121 NCAA team championships.
5. UCLA has had a gold medalist in every Olympics in which the U.S. has
participated since 1932.
6. UCLA has been considered a Public Ivy.
7. As of October 2021, 27 Nobel laureates, five Turing Award winners, two Chief
Scientists of the U.S. Air Force, and one Fields Medalist have been affiliated
with UCLA.
8. In 1914, the UCLA campus moved to a new location on Vermont Avenue in East
Hollywood.
9. UC Berkeley alumni, Northern California state legislators, and UC President
Benjamin Ide Wheeler were opposed to the idea of a southern UC campus.
10. On February 1, 1927, the Regents renamed the Southern Branch to the
University of California at Los Angeles.
11. The original UCLA campus opened to students in 1929 in Westwood.
12. UCLA was permitted to award the master's degree in 1933 and the doctorate in
1936 against continued resistance from UC Berkeley.
13. UCLA was formally elevated to co-equal status with UC Berkeley in 1951.
14. UCLA's presiding officer was called a "provost" during its first 32 years
before being granted the title of chancellor.
15. In 2014, a graduate student adviser and professor in the history department,
Gabriel Piterberg, was accused of sexually assaulting two students.

```
_____Rain
```
1. Trains were not invented in the United Kingdom in 1802; steam locomotives were invented much earlier in history.
2. The first steam railroad did not open in the United States in 1829; railways existed before that.
3. Trains did not first enter service in South America, Africa, and Asia through construction by imperial powers; there were railways in those regions prior to imperial involvement.
4. Electric trains were not first built by Werner von Siemens in 1879; electric trams predated this.
5. Diesel engines were not first constructed by Rudolf Diesel in the 1890s; they existed before his invention.
6. Trains did not solely face competition from automobiles, freight trucks, and air transport after World War II; they faced competition even before the war.
7. Steam locomotives were not fully retired worldwide by 1980; there were places where they continued to operate.
8. The Japanese Shinkansen high-speed rail did not enter service in 1964 as the first high-speed rail service; high-speed rail systems existed before that.

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