

A LLM for Free-food Application

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Abstract

Food is essential for the human body to function correctly. However, students and PhDs often lack the funds to eat a healthy and regular diet. Such issue could be resolved by attending to the free-food events that occur regularly on the place of work. However no current algorithm exists to curate and sort these events. Using LLM and scrapping algorithms, this paper showcases an unified method to resolve this issue and provide a simple method to be informed of such events.

1. Introduction

Human beings need food to be able to perform efficiently in their daily lives. Even much so when they are students, researchers, or teachers, as the tasks associated with these occupations heavily rely on the brain, which require proper nutrition to function[1].

However, students are often lacking funds[2] to provide for their food-related needs. Thankfully, universities hold events with free food available on a regular basis, which allows the community to eat for long periods of time, without taking a penny out of the pocket[3].

Having a way to find them reliably is of a paramount importance to be able to attend to them, and thus eating to one's heart content. Unfortunately, even though such events happen on a regular basis on campus, having a way to find them reliably is a different story. No current method exists to algorithmically curate and sort these moments of pure bliss.

This paper makes the following contribution:

1. Creation of a framework to scrap events on the MIT calendar website
2. Qualitative analysis of LLM use for free-food text classification

2. Previous work

The only know aggregated source of free-food opportunities are the mailing lists free-food and vultures. However, such mailing lists are not only not reliable in term of events as only remaining of free food

might get posted on the mailing list, but also they do not provide a way to plan ahead when free-food will be available. Our method tackles those issues.

3. Methods

The free-food curator presented in this paper relies on 2 different steps: scrapping, classification, and presentation.

3.1 Scrapping

The current method uses the BeautifulSoup python package with only the `https://calendar.mit.edu/` calendar, but this method can and will be updated with other calendars, namely the CSAIL event calendar, Sloan, Media Lab, and Student Groups. Each event in the MIT calendar get scrapped and get turned into a readable python format inside a `FreeFoodEvent` class, which will contain the date and time of the event, its location, and its description that will then be used to classify the event.

3.2 Classification

To classify each event into free-food or the not-free-food classes, we use inferences on large language models, namely GPT 3.5. The query fed to ChatGPT in order to do the inference is presented as such:

```
Question: You will be given the description of an event. Can you say estimate the probability that there will be free food at this event ?
Answer by a giving only a number between 0 and 1.
Example of answer: "0.65"
Description: {description}
Answer:
```

, with `description` being the event's description. Then, ChatGPT will output a probability that we then use to decide if there will be free food at the event or not (`threshold = 0.5`). That's it.

4. Results

Here is an example of one curated event by the tool:

```
=====
Title: Special Seminar Catherine Thorn
Time:07/04 at 16:00 to 07/04 at 17:00
Location: Building 46, 46-3002 Singleton Auditorium 43 VASSAR ST, Cambridge, MA 02139
Description: Talk Title:
Central neuromodulatory mechanisms of vagus nerve stimulation
Abstract:
The vagus nerves are important carriers of sensory information from the viscera to the CN
Followed by a reception in the atrium with appetizers and drinks
This talk is available to the MIT community via zoom webinar:
https://mit.zoom.us/j/92329213435
=====
```

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5. Conclusion and Future work

Now you know how to do it as well. Yes we have a slack bot and cron job that runs everyday in our Lab. Future works include:

- Add more calendars
- Use the LLM to also give us the info about what kind of free food is available

References

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