



Event Extraction and Notification Chrome Extension

STAR

S

Situation

The challenge addressed was the time-consuming process of manually adding event information from emails to a calendar. With the proliferation of digital communication, important event details can often get lost in a sea of emails.

T

Task

The objective was to automate the extraction of event information from emails and update this information directly into a calendar, thus saving time and improving efficiency.

A

Action

Developed an NLP-based browser extension that analyzes email content to detect event details like date, time, and location. The system uses lexical analysis, parsing, and specific grammar rules to extract and map event details onto a calendar autonomously with user consent.

R

Results

The extension successfully automated the process of event information extraction and calendar updating. It demonstrated the capability to accurately detect and process event details from emails, significantly reducing the manual effort required.

• Leveraged Knowledge •

Programming & Development: Utilized Python for developing the browser extension and integrating with Gmail API and Google Calendar API.

Natural Language Processing (NLP): Applied NLP techniques for email text analysis and event detail extraction, including tokenization and POS tagging.

Data Parsing & Analysis: Implemented parsing algorithms to process and interpret the structured and unstructured text.

API Integration: Integrated with Gmail API for email retrieval and Google Calendar API for event updating.

Software Engineering: Designed and executed the extension's architecture, ensuring seamless user experience and functionality.

Project Analysis

	POSITIVE	NEGATIVE
INTERNAL	STRENGTH <ul style="list-style-type: none">› Innovation in automating event management from emails, leveraging advanced NLP techniques for accuracy, and enhancing user productivity by streamlining calendar updates.	WEAKNESS <ul style="list-style-type: none">› Potential limitations in detecting complex event details, reliance on specific email and calendar platforms, and challenges in handling emails with non-standard formats or multiple events.
EXTERNAL	OPPORTUNITY <ul style="list-style-type: none">› Expansion to support multiple email and calendar platforms, integration with corporate scheduling systems, and potential to extend functionality for broader personal management tools.	THREAT <ul style="list-style-type: none">› Emerging competitors with similar or more advanced solutions, changes in API access policies by email and calendar service providers, and potential privacy concerns from users.



Thank You