



Prompt Engineering

Matthew Brady

Bruce Kratz

Oct 22, 2025





Today's Agenda

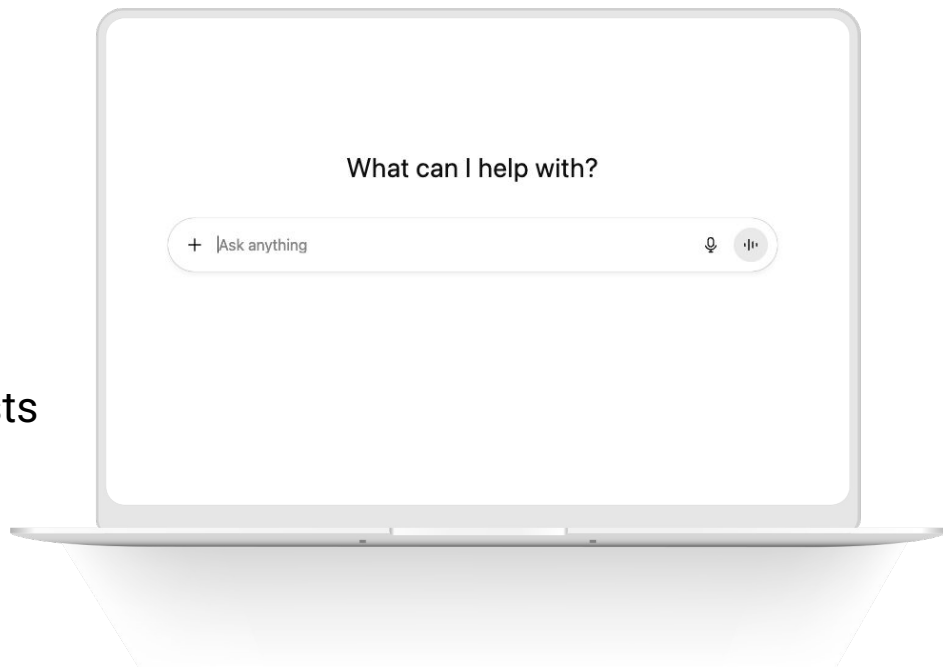
What is Prompt Engineering?

More than just what you type “in the box”

What happens in the background

How are AI products processing your requests

How can you maximize the accuracy of AI responses





Terms

LLM - Large Language Model

GPT - Generative, Pre-Trained Transformers

Context

Context Window

Tokens - Chunks of data that model processes

Parameters - How much the model can learn

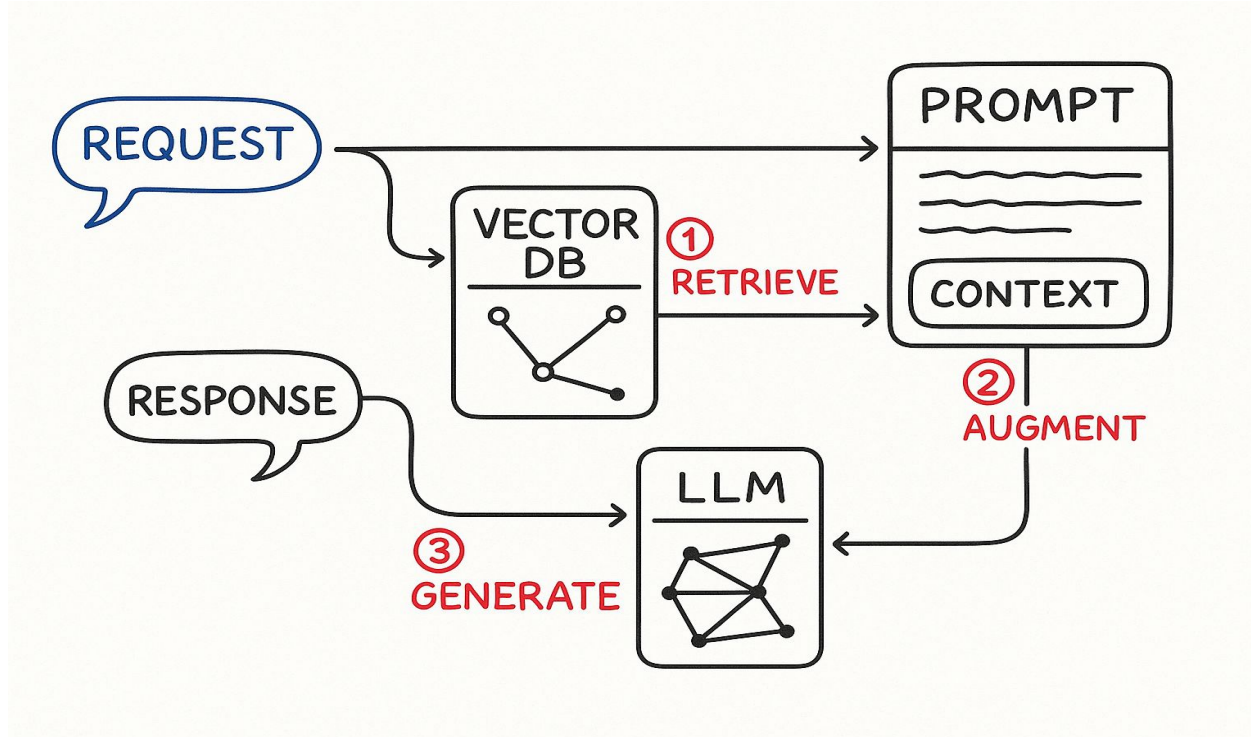
Types of Prompts - zero shot, multi-shot, chain of thought

RAG



Retrieval-Augmented Generation

RAG



Google Sheets

COTS System Stats										
File Edit View Insert Format Data Tools Extensions Help										
Menus 100% \$ % 123 Default... 10 B I A										
A1	Month									
	A	B	C	D	E	F	G	H	I	J
1	Month	2022	2023	2024	2025	2022 -> 2023 Email Increase	2023 -> 2024 Email Increase	2024 -> 2025 Email Increase		All Time Emails
2	Jan	25,317,445	37,467,156	49,221,506	57,223,369	48%	31%	16%		
3	Feb	28,872,301	42,700,119	49,219,356	57,771,122	48%	15%	17%		
4	Mar	38,116,636	47,526,045	50,051,455	62,506,830	25%	5%	25%		2018
5	Apr	34,209,499	43,006,429	52,343,233	64,785,194	26%	22%	24%		2019
6	May	37,335,038	47,977,585	48,687,037	64,609,713	29%	1%	33%		2020
7	Jun	37,319,063	45,511,052	51,500,118	63,773,842	22%	13%	24%		2021
8	Jul	32,786,386	39,983,397	49,222,680	63,582,335	22%	23%	29%		2022
9	Aug	44,638,677	54,437,411	53,597,876	61,637,557	22%	-2%			2023
10	Sep	42,769,741	52,158,221	61,194,232	70,373,367	22%	17%			2024
11	Oct	41,463,475	50,565,213	71,527,769	82,256,934	22%	41%			
12	Nov	46,648,154	55,985,358	70,680,185	81,282,213	20%	26%			
13	Dec	35,812,366	36,964,748	62,223,424	71,556,938	3%	68%			
14	TOTALS	445,288,780	554,282,734	669,468,871	801,359,414					
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

Gemini

See what Gemini can do



Generate a chart

Create a chart using this data



Analyze for insights

Generate insights or trends for this data



What can Gemini do

in Google Sheets

Gems



Sentiment analyzer

Analyze customer feedback to reveal trends and make recommendations.



Outreach specialist

Craft personalized messages to potential customers, build relationships, and drive engagement.



Sales pitch ideator

Create compelling sales pitches that resonate with your audience and drive conversions.

Your Gems will appear across Workspace

Enter a prompt here



A1:H14

T

G

5

Chat

Design

Rules

Connect

Vars

Settings

Race Question Bulk Edit - Reg upload edition

Race Question Bulk Edit- Reg Upload Edition

Let's make some changes for Run Mode. If the Run Mode switch is set to 'Update Run' - then in the place where you are looping through the records, for each batch prepare an API call to update the question responses for the registration IDs in that batch. I think you put a comment where this call needs to go. The API to call is `https://api.runsignup.com/rest/race/:race_id/participants` and it will be a post. You will use the `api_key` and `api_secret` you have stored from the inputs from the user. You will also use the `race_id` and `event_id` and `question_id` you have from the user.

Show full message

pasted-text.txt

Read pasted-text.txt.txt

Thought for 6s

Read current processing logic

Thought for 6s

> Added RunSignup API integration v14

Ask a follow-up...

+ Design

Settings Share Publish

v24

Question Response Bulk Update Utility

This utility will perform a bulk modification of all question responses for a given race, event and question. You can use it to completely erase or deidentify all the question responses for a particular question. **Limitations:** Only works for free text question types and only for races (not tickets).

Configure your API settings, upload a CSV file, and process registration data with batch handling.

Configuration

Enter your v1 API credentials and processing parameters. Check them carefully, there is no validation

Run Mode
Test run - no actual updates

Test Run ☐ Update Run ☐

API Key
Enter API key

API Secret
Enter API secret

Batch Size
10

Race ID
Enter race ID

Event ID
Enter event ID

Question ID
Enter question ID

Replacement Value
Enter replacement value

calendar.html — calendar

urls.py

calendar.html 9+ X

models.py

views_temp.py

create_sample_data.py

New Chat

+ ⓘ ⓘ ⋮

edit_shift.html

views.py

⌵ ⋮

calendar_app > templates > calendar_app > calendar.html > div.calendar-container > div.calendar-header > div.d-flex.a

```

1  {% extends 'calendar_app/base.html' %}
2  {% load calendar_extras %}
3  {% load color_helpers %}
4
5  {% block title %}Calendar - {{ month_name }} {{ year }}{% endblock %}
6
7  {% block content %}
8  <div class="calendar-container">
9  <!-- Calendar Header -->
10 <div class="calendar-header">
11 <div class="d-flex align-items-center">
12 <a href="?year={{ prev_year }}&month={{ prev_month }}" class="nav-button">
13 <i class="fas fa-chevron-left"></i>
14 </a>
15 <h2 class="calendar-title mx-3">{{ month_name }} {{ year }}</h2>
16 <a href="?year={{ next_year }}&month={{ next_month }}" class="nav-button">
17 <i class="fas fa-chevron-right"></i>
18 </a>
19 </div>
20 <div class="d-flex align-items-center gap-3">
21 <div class="legend-item">
22 <small class="text-muted">
23 <i class="fas fa-info-circle"></i>
24 Same colors = same template family
25 </small>
26 </div>
27 <a href="?year={{ today.year }}&month={{ today.month }}" class="btn btn-outline-primary btn-
28 Today
29 </a>
30 </div>
31 </div>
32
33 <!-- Calendar Grid -->
34 <div class="calendar-grid">
35 <!-- Day Headers -->
36 <div class="calendar-day-header">Sun</div>
37 <div class="calendar-day-header">Mon</div>
38 <div class="calendar-day-header">Tue</div>
39 <div class="calendar-day-header">Wed</div>
40 <div class="calendar-day-header">Thu</div>

```

1 Tab + Browser

Plan, search, build anything

∞ Agent ⓘI Claude-4.5-sonnet ⓘ ⓘ

Open in Agent Window (⌘E) ⌵

Past Chats ⌵

View All

Edit shift rules for one-time changes 3w

Understanding exit process for editing shifts 4w

Generate a name for the chat 4w



Auto context

- Open files
- Cursor location (and nearby code)
- Recent edits
- Chat history

Manual context

- Your prompt
- Files you give it
- Cursor Rules
- Images
- Code index

What gets sent to the model

- System prompt (Hidden behavior rules)
- Auto context
- Manual context



LLMs

- Anthropic's Claude, Open AI's GPT, Google's Gemini
- Receives the Cursor prompt and performs the task

How to talk to LLMs

- Manage context
 - Give good examples for format and patterns
 - Manage chat history by keeping each session specific to the task and use ***few-shot prompting*** or to think out loud step by step
 - Coding specific: Only keep relevant files open
- Prompt Engineering
 - Avoid hallucinations
 - LLMs are trying to complete the task whether they know the answer or not.
 - Give them an out by saying "you can say you do not know" or "Ask follow up questions for clarification"
 - Use ***few-shot prompting***
 - Avoid one large prompt (one shot)
 - Keep it conversational before asking it to complete a task
 - Use it as a copilot, give it information, examples, background, allow it to ask you clarify questions
 - This will build up the chat history context to give better results

Thank You

