

EXPAND YOUR
OPPORTUNITIES

FPA Indianapolis: AI, Prompt Engineering and Financial Planning

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You

I am presenting at the Financial Planning Association of Indianapolis on the use of ChatGPT for financial advisors. Please write an introductory joke for me as I begin my speech.



ChatGPT

Sure, how about this one for your presentation:

"Good morning, everyone! I've been spending some time with ChatGPT to help me prepare for today. In fact, I asked it to manage my investments. It said it's great at handling artificial intelligence, but for artificial wealth, I'm on my own!"

"If you don't like change, you'll
like irrelevance even less"

General Eric Shinseki

Small Improvements Add Up

- One hour a day...
 - ~252 Business Days per year..
 - $252 \text{ hours} / 8\text{hrs/day} = \dots$

Time Savings = One Month per Year

Overview x

1. Introduction to ChatGPT
2. Using ChatGPT in Financial Planning
3. Prompt Engineering
4. Limitations
5. Questions



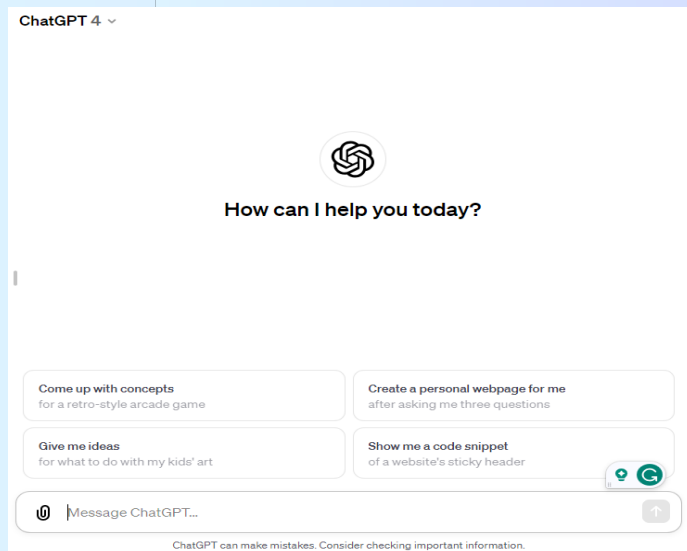
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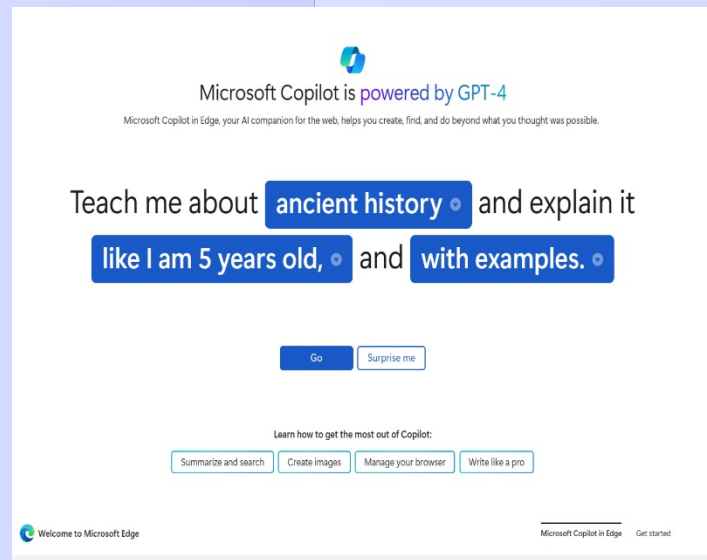
My personal “history” of Generative AI

Main Generative AI Chatbots

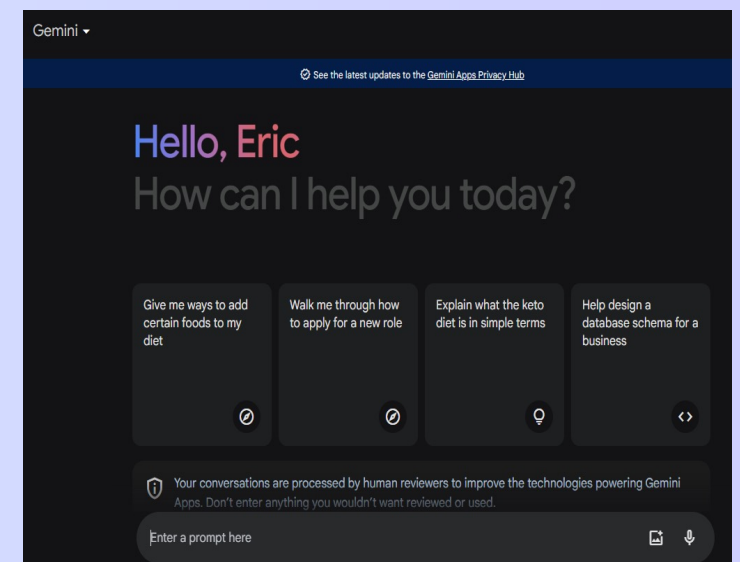
Open AI: ChatGPT



Microsoft: CoPilot



Google: Gemini





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Introduction to ChatGPT

Introduction to ChatGPT

Who uses AI (Artificial Intelligence) today?

- Hey Siri/Google/Alexa
- Autocomplete in Word/Outlook
- Autocomplete in text
- Netflix

How is it different than a search engine (Google)?

- Functionality
- Interactivity
- Data Source
- Real-time Updates

Introduction to ChatGPT

What is ChatGPT?

- **G** – *Generative*
- **P** – *Pre-Trained*
- **T** – *Transformer*

Introduction to ChatGPT

G - *Generative*

- This means that the AI model is capable of generating outputs, such as completing a sentence, writing a paragraph, or even an entire article.
- It does this based on what it has learned from the training data and your interaction.
- Other models are capable of generating images, videos, voice, programming code, etc.

What is ChatGPT?

- **G** – *Generative*
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Introduction to ChatGPT

- Text is not too bad. Images...

“Create an image of two white male financial advisors who are also PhDs in finance. They are presenting at a conference. One is 6'9" and looks like he could play basketball. The other is 5'11" and looks like he plays rugby. Both are in dress pants with a dress shirt and a sport coat but no tie.”



Financial Advisors

Left Panel:

Mhbtb

sin Finanocael Advisors

\$2

6/21

Right Panel:

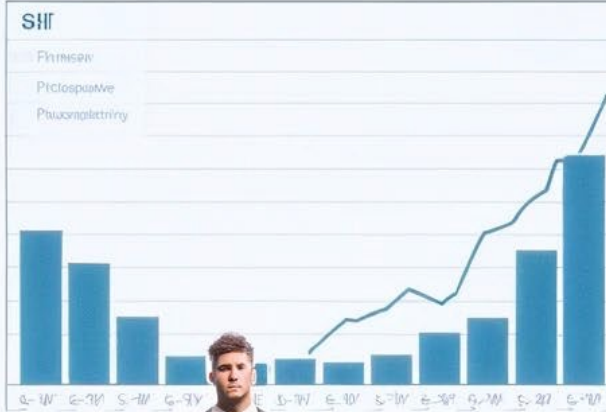
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Left Panel Table:

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Right Panel Table:

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6 7A 7 0B	6 S1.00	6 11.00	5 2 #1	\$ 12. 08
7 6 0 11	8.07 1m	7 15 1m	7 0c 1m	8 1 m

[illegible]

Introduction to ChatGPT

P – *Pre-Trained*

- Before the model is fine-tuned for specific tasks, it is pre-trained on a large body of text(s). During this pre-training, the model learns to predict the next word in a sentence.
- Allows the model to learn a broad understanding of the language, including grammar, facts about the world, and some level of reasoning ability.
- The result of this training is referred to as a Large Language Model (LLM)

What is ChatGPT?

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Introduction to ChatGPT

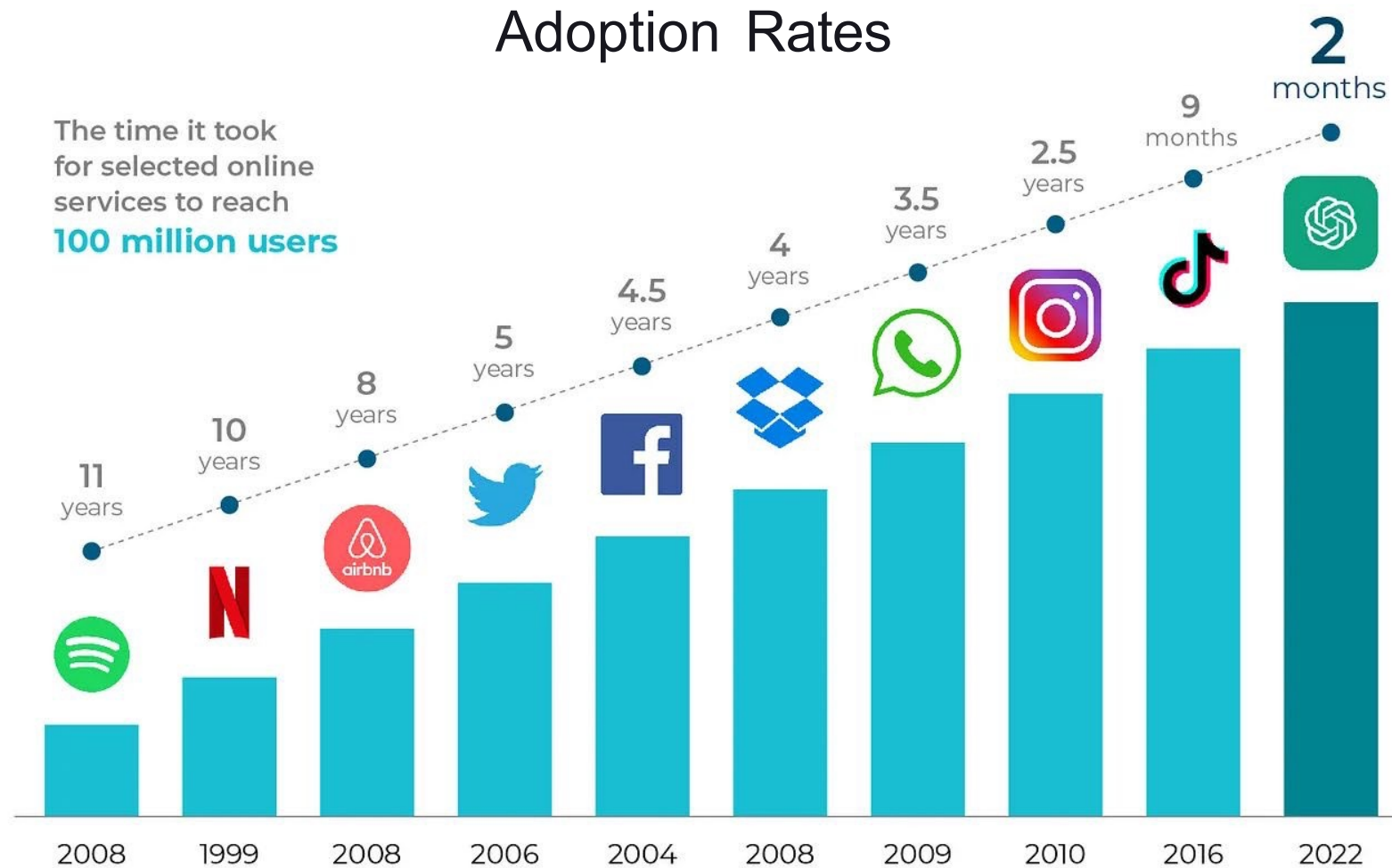
T – *Transformer*

- This is the type of model architecture that GPT is based on.
- Transformer models use a mechanism called "attention" to weigh the importance of different words when generating an output.
- These processing techniques allow the model to plan out sentences and create final output that is original.

What is ChatGPT?

- **G** – *Generative*
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Adoption Rates



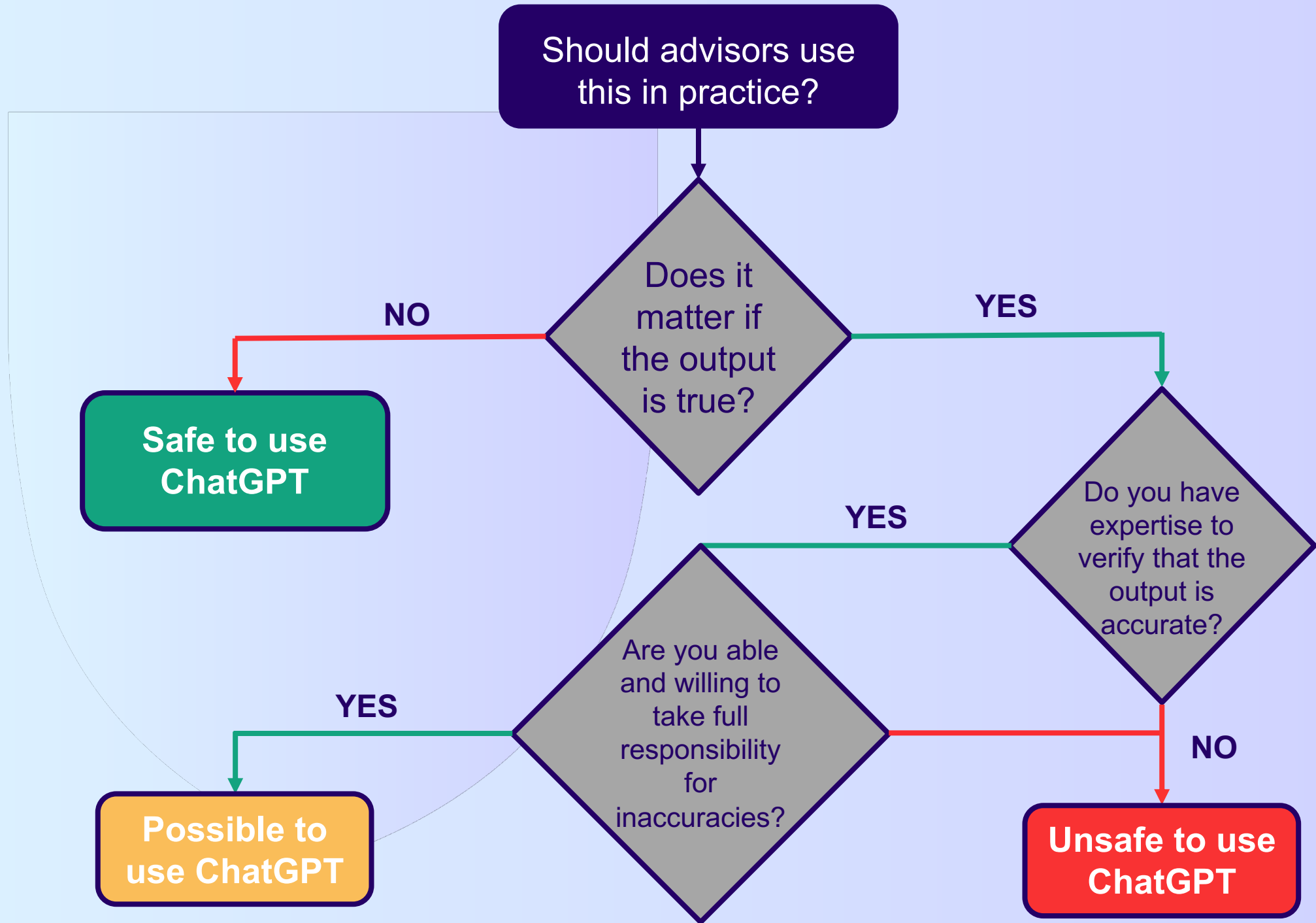
Source: World of Statistics

Using ChatGPT in Financial Planning

Using ChatGPT in Financial Planning

Should advisors use this in practice?

- Maybe...



Gen AI and adviser production potential



¹Share of adviser time spent on activity: very high ≥20%; high = ~10–20%; medium = 5–10%; low ≤5%.

²Estimated time saved by deploying gen AI: very high = 40–50%; high = 30–40%; medium = 10–30%; low ≤10%

Source: Cerulli Associates

Background

- Consumers are more willing to receive advice from social media than AI.
- Most are skeptical about AI's impact on financial planning (33%)
- Only 11% feel AI will take the place of the FA. 52% feel it will supplement the FA.

CFP Board Consumer Sentiment Survey: Trusting The Source, August 2023

- Personal Finance built on trust & responsibility (Reiter, et. al., 2022)
- Promise of precision but biases possible (Jo, 2023)
- Rapid rise of generative AI like ChatGPT across several areas of disciplines and industries (Bommasani et al., 2021)

Limitations

- It's a know it all that is constantly learning
- Generative AI still vulnerable to societal preexisting biases based on its training
- Likely could not replicate the qualitative analysis as a result of constant learning



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Prompt Engineering

≡ Title Location Date posted Requirements Type Company type Employer

All

Engineer

Engineers

Data scientist

Engineering

Engineering manager

Lead engineer



AI Prompt Engineer

Ascendo Resources

Anywhere

via LinkedIn

🕒 20 days ago 🏠 Work from home 📁 Full-time

🛡️ Health insurance



Prompt Engineering Manager

Anthropic

San Francisco, CA

via Lever

📁 Full-time 🛡️ Health insurance

🦷 Dental insurance 📅 Paid time off



AI Prompt Engineer I

GEOGRAPHIC SOLUTIONS INC

Anywhere

via Indeed

🏠 Work from home 📁 Full-time



Prompt Engineers

Forhyre

Dallas, TX

via ZipRecruiter

📁 Full-time

Prompt Engineering Manager



Anthropic

San Francisco, CA

🔖 SAVE



Apply on Lever

Apply on Indeed

Apply on Glassdoor

Apply on ZipRecruiter

Apply on Ai-Jobs.net

Apply on Menlo Ventures



📁 Full-time 🛡️ Health insurance 🦷 Dental insurance 📅 Paid time off

Job highlights

Identified by Google from the original job post

Qualifications

- Ideally this project should show off a complex and clever prompting architecture or a systematic evaluation of an LLM's behavior
- Have experience managing high performance teams of engineers or scientists
- Have an organizational mindset and enjoy building teams from the ground up
- Have excellent communication, collaboration, and coaching abilities
- Are comfortable dealing with highly uncertain, ambiguous, and fast-moving environments
- Have a creative hacker spirit and love solving puzzles

5 more items

Responsibilities

- Manage and mentor prompt engineers, providing both technical guidance and career development
- Set goals and reviews for your team, promoting growth and output

5 more items

Benefits

- Annual Salary
- \$320,000-\$520,000

15 more items

Prompt Engineering

What is it?

- Part art and part science
- Involves crafting or adjusting the input in a way that improves the model's response.

Strategies

- **RATE**
 - Role
 - Ask/assignment
 - Tone
 - Extras

Prompt Engineering

Role

- Define your role: “I am a...” or “you are a...” e.g., financial planner, financial blogger, financial **expert**, etc.
- Define the role of the audience: “my client is...” or “presenting to a group of financial planners”
- There are no limitations to this

Strategies

- **RATE**
 - Role
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Prompt Engineering

Ask / Assignment

- What is the desired outcome: “explain...” or “list...”
- Type of outcome: “...as an outline” or “...as a paragraph”
- Length: “...in 500 words or less” or “using four paragraphs...”
- There are no limitations to this

Strategies

- **RATE**
 - Role
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Prompt Engineering

Tone

- Who are you writing to: “in a professional tone...” or “integrating humor...”
- Framework of response: "Funny vs. serious", "Formal vs. casual", "Respectful vs. irreverent" or "Enthusiastic vs. matter-of-fact".
- There are no limitations to this

Strategies

- **RATE**
 - Role
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Prompt Engineering

Extras

- Integration of interactivity: ‘Ask me additional questions before responding’
- Committee: “answer as if you are a committee of...”
- Clear its mind: “ignore everything we have discussed up to this point” or “let’s try this a different way”
- Write [request] in the voice of [point-of-view #1]. Repeat for a total of 3 times. Then ask “which is best” making sure to define “best.”

Strategies

- **RATE**
 - Role
 - Ask / Assignment
 - Tone
 - Extras

Prompt Engineering

Example of Good Prompt Engineering...

Limitations

- Know it all
- Garbage in – Garbage out
- First Draft!
- Trapped in time
- Hallucinations
- YOU are the expert for YOUR clients...be the expert!



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Closing

- Try it!
- Cheat sheet
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Questions?