ChatGPT
Tips & Tricks

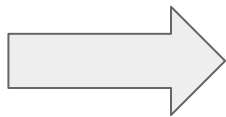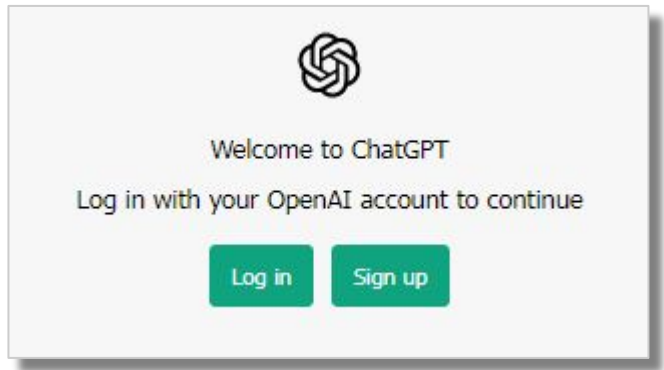CPS HR CONSULTING

Intros

Welcome

- Goals of the workshop
- Upcoming classes
  - Level 1: Sept 22, Oct 27
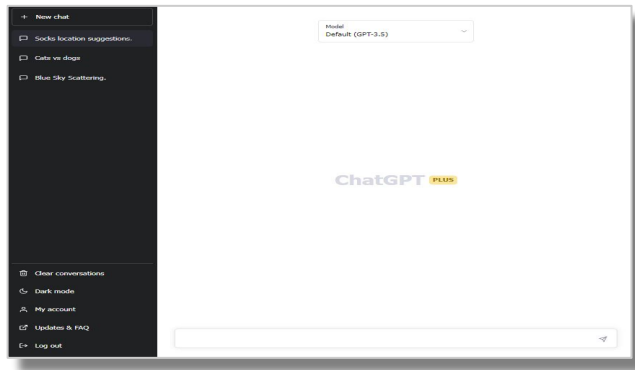 - Level 2: Oct 6, Nov 17
  - See https://www.cpshr.us

Poll:

- Do you use ChatGTP now? Free or Paid?
- Any questions you want me to ask ChatGPT?

the Interface

Create account or sign in at https://chat.openai.com

Type your prompts here

Activity: Ask about a famous person with your last name.

What is ChatGPT?

ChatGPT is a "Large Language Model" (LLM):

- Version 3.5 Turbo is free
- Version 4 is $20/month but you can get some of it for free using Microsoft Bing
- Trained on 45 terabytes of text data, mostly websites
- Lineage:
  - Made possible by improvements in LLMs from 2017 paper by Ashish Vaswani, "Attention is all you need"
  - Successor to GPT3, which is also free and available from https://platform.openai.com/playground

Activity: Translate a scene with Romeo and Juliette.

What is All This Stuff?

The hierarchy of terms is:

- Artificial Intelligence
  - Machine Learning
    - Neural Networks
      - Large Language Models
        - Transformers
          - OpenAI's ChatGPT
          - Anthropic's Claude
          - Google's Bard
          - Microsoft's Bing

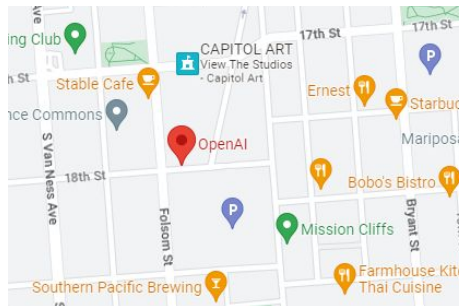Activity: Prepare me for a job interview.

Who Created ChatGPT?

Built by OpenAI, which also created:

- DALL-E image generator
- Whisper speech recognizer
- Codex developer aide
- Dactyl robotic hand (youtube)

Microsoft involvement:

- July, 2019: invests $1B
- Jan, 2023: invests $10B
- Owns 49% of stock

Activity: Draw a DALL-E kitten using https://labs.openai.com.

Limitations of ChatGPT

Free Version:

😦 In each chat, limited memory of about 3000 words

😦 Often inaccessible. Tip: refresh, use a different chatbot, or pay $20/month.

😦 Won't access individual web pages

😦 No knowledge of events after September 2021 without plugin

Paid Version:

😦 Limit of 25,000 words in each chat on paid version.

😦 Code Interpreter not allowed to download web pages. You can get a plugin for that, but not run Code Interpreter at the same time

Activity: Ask the bot for current events, to download a web page, or a dark joke.

Use Case: Summarization

ChatGPT works well to summarize documents:

- Paste in the text. Note the limitations on input size of 3k words.
- If it is well-known, you can refer to certain URLs that are already in the LLM's training data:
  - Sites: New York Times, Stack Overflow, Wikipedia
  - written before September 2021,

Activity: Summarize the Amendments to the US Constitution

Use Case: Code Creation

ChatGPT knows many programming languages and can write code for you:

- Markup languages: HTML, CSS, Markdown, Mermaid
- Programming languages: Python, JavaScript, and similar
- Machining Tools: G-code for 3-d printing, M-code, CAM

Activity: Create a web page with a bouncing ball.

Code Interpreter (Paid Version)

The paid version of ChatGPT offers a "Code Interpreter" that:

- writes and executes Python code for you
- Creates a virtual filesystem that lets you upload documents
  - PDFs
  - Spreadsheets
  - Images

Activity: Can you have a cat in your apartment?

Plugins (Paid Version)

The paid version of ChatGPT offers a number of useful plugins from different vendors:

- Web Pilot to download web pages
- Show Me Diagrams (self-explanatory)
- HeyGen for text-to-video
- Indeed for job searches
- TopHap/Zillow for real estate searches
- Zapier for integrations

Activity: Find the least expensive house in San Francisco