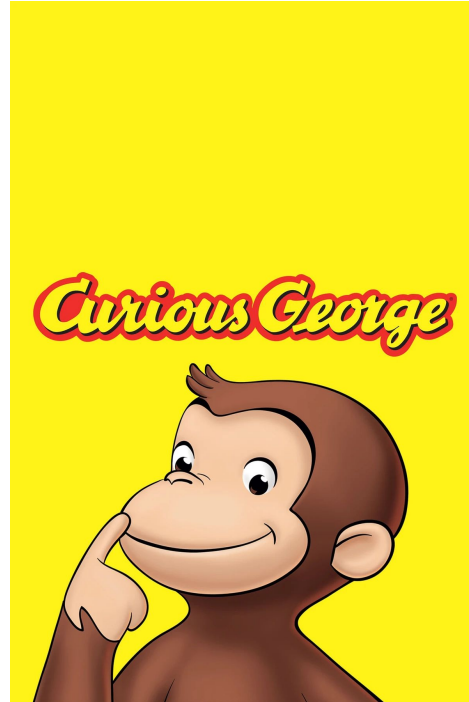# Discover IVOA with ChatGPT

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Disclaimer

I'm not a ML or AI expert

Disclaimer (2)

The abstract …

"Discovering the International Virtual Observatory Alliance (IVOA) with ChatGPT is a seamless and insightful experience. Powered by its advanced natural language processing capabilities and extensive knowledge, ChatGPT can provide comprehensive guidance on exploring IVOA. By interacting with ChatGPT, users can ask questions, seek explanations, and receive step-by-step assistance in utilizing IVOA services. From understanding the standards and protocols to connecting with the Table Access Protocol (TAP) service, ChatGPT offers intuitive explanations and practical examples. With its ability to provide tailored responses and address individual queries, ChatGPT serves as a valuable companion in unraveling the world of IVOA."

ChatGPT

- Why ChatGPT?
  - Large Language Models (LLM)
  - No time/resources to try the other available ones: Bing, Bard, Copilot, etc.
- Why discover IVOA?
  - Multiple uses of ChatGPT
  - "AI is going to give every student a personalized tutor" - Sal Khan the founder of Khan Academy

- "Methodology" - series of conversations with ChatGPT about IVOA related subjects: standards, libraries, examples etc.

General Observations

- Good general grasp of the terms/terminology
- Interesting view of the IVOA:
    - TAP is always associated with IVOA
    - Main applications (Aladin, TOPCAT, STILTS, PyVO) are often mentioned
    - Great exploration tool

HOWEVER…

- Knowledge cutoff - September 2021.
- It doesn't reference the source of the information
- Main Problem: reliability.

"Our biggest concern was around factuality, because the model likes to fabricate things." - John Schulman (OpenAI co-founder)

Incorrect Answers

What is pyvo?

Answer:

"Pyvo is a Python package that provides a simple and efficient interface for working with data from the Czech beer culture, including beer styles, breweries, and beer events. It includes data from the Czech Beer Guide, Open Brewery DB, and the Czech Beer Culture website.

With Pyvo, users can easily access and manipulate data related to Czech beer, including information on beer styles, breweries, and events. This package can be useful for beer enthusiasts, researchers, or anyone interested in exploring data related to Czech beer culture.

Pyvo can be installed using pip, the Python package manager, and it is open-source software, released under the MIT license."

How to Improve?

- ChatGPT feedback (requires a specialist)
    - Not clear how fast the feedback is incorporated but progress is visible
- Better prompts
    - Avoid the GIGO effect.
    - Prompt engineers?
    - Idea is to give context, ask ChatGPT to assume the identity of a profession,
- Better data to train on
    - Use a ChatBot trained with custom data
    - Explosion of tutorials/websites etc.

Final Thought

ChatGPT and all the new related AI tools and ChatBots offer a novel/disruptive way for exploring and consuming information and we will need to adapt to that.

Thank you.