

In this assignment, we are going to explore the capabilities and limitations of ChatGPT 3.5 and Claude as a student, simulator, and data analysis tool.

Part 1: ChatGPT 3.5 as a student

Teaching is hard. I know this from experience. However, it is also one of the best ways to refine your knowledge on a topic. When you teach, the questions you receive force you to reconsider and rethink your understanding of something. I have been teaching economics for three years, and I still learn something new every semester by re-evaluating the material.

Task 1.1: Choose a Topic that You Know Very Well

Choose a topic that you are very knowledgeable about. The goal for this assignment is to gauge how well you can explain/teach this topic to ChatGPT.

Task 1.2: Explain to ChatGPT

Log into your ChatGPT 3.5 account and explain to it that you are going to teach it something. Given it is a Large Language Model trained on centuries of data, it is likely that it will know something about your topic already. Therefore you must prepare it by asking that it temporarily forget that knowledge and evaluate how well you've explained it.

Example Prompts

- I would like to teach you something that I am an expert about. The goal is for you to imitate a student who doesn't have prior knowledge on this topic and is learning this information for the first time. After I explain my topic, I want you to ask me follow-up questions. After you have read my explanation and answers to your follow-up questions, I want you to explain the topic back to me as best you can from my explanation. I want to evaluate my teaching effectiveness. Ok, let's begin. Today I am going to teach you about <at least 7-8 sentences explaining your topic>...

ChatGPT 3.5 should start asking follow-up questions. After you answer four of those questions, tell it that you are done answering questions and ask it to explain the topic back to you based on your explanation.

Task 1.3: Save the Output

Save the complete dialogue as a .doc file named ChatGPT_Student_[Your Initials].doc.

Part 2: Scenario Building with ChatGPT 3.5

ChatGPT can take on multiple roles besides imitating a famous person. In this assignment, ChatGPT 3.5 is going to interview you for a job.

Task 2.1: Set the Scene

ChatGPT 3.5 is going to play the role of a hiring manager and interview you for a job. Log into your ChatGPT 3.5 account and first explain to ChatGPT what you are hoping to accomplish in this exercise and what specific role that are going to play.

Example Prompts

- I would like to practice a job interview with <your dream company> for the position of <your dream position>. You are going to play the role of the hiring manager and ask me questions. I want you to evaluate my background and ask me questions that really push how well I know how to do this job. I want this to be a tough interview so that I'm prepared. The job description is <job description>.

For the job description, I encourage you to go on LinkedIn or Monster and find a job posting that is similar to a job you would want. Answer at least five of the chatbot's questions (it may ask many questions at once) and then save the exchange.

Task 2.3: Save the Output

Save the complete dialogue as a .doc file named ChatGPT_JobInterview_[Your Initials].doc.

Part 3: Data Analysis via Claude

The paid version of ChatGPT allows you to use Advanced Data Analysis, which is an amazing tool for evaluating data and generating graphs. You are welcome to try that for this assignment, but it is not required as ChatGPT 4 is \$20/month. You can still do this assignment in Claude, but Claude can't draw graphs for you.

Task 3.1: Get the Data

Go to <https://fred.stlouisfed.org/> and search for data on unemployment, inflation, gross domestic product, job openings, layoffs, employment-population ratio, or quits. The library is really vast so you can get data on these variables for any municipality, state, region, or the whole country. Choose a dataset that interests you. When the graph is generated, click on DOWNLOAD in the upper right corner to download the data directly. You'll want to download

it as a CSV file.



Task 3.2: Upload to Claude

Log into your Claude account and upload the CSV file that you just downloaded. The upload button is next to the text prompt in Claude and is a paperclip icon.

Task 3.3: Claude as a Data Scientist

In this task, you will ask Claude **at least five separate questions** about the data to get a better understanding of it.

Example Prompts

1. Examine this file and explain these data to me in full detail. What are these data of?
2. What are some interesting insights about these data?
3. Can you identify trends in these data?
4. Can you extrapolate where these data will go?
5. Explain some interest statistical tests I could do with these data?
6. What are ways that these data might be problematic?

The chatbot should do a pretty good job of figuring out what the data are. If not, you can give it more context.

Task 3.4: Save the Output

Save the dialogue as a .doc file named `Claude_DataAnalysis_[Your Initials].doc`.

Part 4: Reflection

Answer the following questions by hand on a piece of paper (2-3 sentences each). Take a picture and upload it:

1. How effective did you find ChatGPT in simulating a student's role? Were there limitations?
2. Did the job interview scenario with ChatGPT offer any insights into your preparation level for such interviews?
3. How well did Claude perform as a data scientist? Were there any gaps in its analysis?
4. Were there any unexpected outcomes or insights you gained from this assignment?
5. How would you integrate ChatGPT and Claude into your future learning or professional activities?

Submission Guidelines

- Submit all three .doc files: `ChatGPT_Student_[Your Initials].doc`, `ChatGPT_JobInterview_[Your Initials].doc`, and `Claude_DataAnalysis_[Your Initials].doc`
- Upload a picture of your handwritten reflection answers.