

# Unemployment-Factors Rubric

**DS 4002 – Spring 2023**

**Due: March 15, noon**

**Submission format: Link to github repository (collab assignments) and hard copy (in class)**

## Individual Assignment

**General Description:** Submit Github repository link to Collab and hard copy of assignment write up in class

Preparatory Assignments – resources from case study about the problem context and past case studies done

**Why am I doing this?** To learn more about analyzing case studies and being able to come up with algorithms/analysis techniques without concrete direction (i.e being told to use a specific algorithm to solve the problem). Allows you to experience what a real data scientist does and focuses on a real world problem that could affect you in the future. In this case study, the real world problem is unemployment disparity between males and females. You learn to come up with concrete suggestions after doing your analysis.

**What am I going to do?** First, read the one-page hook document for this case study, which will outline the deliverables so that you can think about the plan of action, what data sources to use, how to use them, etc. After figuring out what data you are going to use, figure out an analysis technique to find correlations between those factors and unemployment. That deliverable is a list of factors that are the most correlated/important with unemployment disparity. Put that in the README.md file of your github repo. Also include materials/references used in your repository. Then, do critical thinking on the factors you arrived at to come up with solutions/suggestions on what could be done to reduce the gap in employment rates based on those specific factors. Compare your solutions to the case study material that was provided in the GitHub repo. The final part is to do a writeup that summarizes the factors that you think are the most correlated and the plan of action that organizations/people/the government should take to reduce the gap.

## Tips for success:

- Engage yourself in the study. This is a problem that will most likely affect you at some point, so keep that in mind during the assignment so that you're not just completing the assignment but also learning from it.
- Keep an open mind. There are factors that you might assume are causing this unemployment disparity, but also make sure to analyze other factors as well that could have a surprising effect.
- Take time to find relevant data sources. These should be current and include a plethora of information so that you arrive at the best solution possible. Also take into account past case studies on this issue and what worked/didn't work for them.

**How will I know I have Succeeded?** You will meet expectations on Unemployment-Factors Case Study when you follow the criteria in the rubric below.

Spec Category	Spec Details
Formatting	<ul style="list-style-type: none"> <li>• Github Repository <ul style="list-style-type: none"> <li>◦ Have it contain: <ul style="list-style-type: none"> <li>■ README.md</li> <li>■ SRC folder</li> <li>■ DATA folder</li> <li>■ WRITEUP folder</li> <li>■ LICENSE.md file (use MIT as default)</li> </ul> </li> </ul> </li> </ul>
README.md	<ul style="list-style-type: none"> <li>• Goal: Holds the context of the case study, the steps taken, data source used, and deliverables</li> <li>• Use appropriate headings so that it is easily readable</li> <li>• Include your factor list (as an enumerated list – with #1 being the most important) and any relevant information <ul style="list-style-type: none"> <li>◦ I.e. correlation value to unemployment rate</li> </ul> </li> <li>• Include a list of your suggestions to curb the gender disparity in the workforce given the factors listed above</li> <li>• Include references</li> <li>• Markdown format</li> </ul>
SRC	<ul style="list-style-type: none"> <li>• Goal: Have a folder for all code sources used to analyze correlation</li> </ul>
DATA	<ul style="list-style-type: none"> <li>• Goal: This folder contains any data used in the code</li> </ul>
WRITEUP	<ul style="list-style-type: none"> <li>• Goal: Summary of work done, factors that were correlated, and real world suggestions for government/organizations/those in the workforce</li> </ul>
LICENSE	<ul style="list-style-type: none"> <li>• Goal: Explain to readers the terms under which they may use and share your work</li> <li>• The MIT license is the default recommendation</li> </ul>

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