

Case Study Rubric

Due: TBD

Submission format: upload pdf and link to github repo to Canvas

General Description: Submit to Canvas your pdf and link to repository

Why am I doing this? This study is an opportunity to showcase your technical as well as conceptual skills in a unified project. The case study will represent a hands-on scenario similar to one you may be presented in academic courses or in a professional environment.

What am I going to do? At this point, you have likely accumulated a variety of technical and conceptual skills in data science. You will now have the opportunity to combine and express these skills in an independently-driven case study. You will ultimately provide a deliverable that covers all requirements, including significant results and conclusions. The deliverable will include:

- Written portion PDF - along with reference page
- GitHub repository - containing code and necessary data

How will I know I have succeeded? You will meet expectations on this case study when you follow the criteria in the rubric below.

<u>Category</u>	<u>Details</u>
Formatting	<p>Submit each component listed in the rest of this rubric as advised below.</p> <ul style="list-style-type: none">• Written Portion<ul style="list-style-type: none">0 Submit the written portion as a PDF file.• Data & Code<ul style="list-style-type: none">0 Submit code created for all portions in a GitHub repository.<ul style="list-style-type: none">o Include any additional data that was used in GitHub if necessary.o The GitHub should be titled “CS-[insert first & last name]”• References<ul style="list-style-type: none">0 References should be included on a separate page at the end of the Written Portion PDF file. o IEEE citation style

Written Portion	<p>Discuss your interpretation of the study and thought process by answering the questions below.</p> <ul style="list-style-type: none"> • In a small paragraph, summarize the problem presented in the study as well as its importance. • In a small paragraph, discuss your plan to meet the demands of the deliverable. <ul style="list-style-type: none"> ◦ Include a simple graphic that outlines your analysis plan that you will follow for this study. • Finally, discuss the results of your study in complete sentences as well as the significance of these results in the greater context. <p>Reflection:</p> <ul style="list-style-type: none"> • In a small paragraph, discuss the challenges you met while completing this study and how you overcame them. <ul style="list-style-type: none"> ◦ Also discuss what you could have done differently and how you plan to improve in the future.
Code	<p>Your code should include...</p> <ul style="list-style-type: none"> • An exploratory data analysis section with respect to the unemployment rate and the other economic metrics is provided <ul style="list-style-type: none"> ◦ Factors: Income per capita, Percent of the population of each state with a Bachelor's degree or higher, Patents granted in the state, Percent of population that is below the poverty line, and the Minimum Wage. • A time-series regression analysis and model <ul style="list-style-type: none"> ◦ The model should be trained and tested on the provided cleaned dataset. <ul style="list-style-type: none"> ■ Use dataset CS2.dta ■ Located in “Data” folder on GitHub ◦ The model should then be used on the data from years 2008-2020, and cover all states included • Be sure to include comments so a viewer can understand your process.
References	<ul style="list-style-type: none"> • At the end of the written portion of this assignment, please include a list of references in IEEE citation style that were NOT in the already given reference materials.