

Case Study Rubric on NIH Funding Inequalities

Due Date: TBD

Group/Individual Assignment

Submission Format: Upload PDF and GitHub Repo to Canvas

General Description:

This case study gives you the opportunity to explore the general framework of keyword searching and methods used to analyze the frequency and importance of words within a body of text. Understanding the tools needed to effectively search through large samples of text data and come to significant conclusions will be very helpful in your development as a data scientist. By the end of this project, you will be able to understand 1) when keyword searching is an effective method of data searching and 2) how to use analysis methods to draw conclusions from the data.

Deliverables

- Written Report: PDF document that details the research question, hypothesis, data, analysis methods, and conclusions of the project
- Project Repository: GitHub repo labeled for your project that includes data and code used to come to your conclusions

Breakdown:

Category	Details
Formatting	<ul style="list-style-type: none">• Written Report: Uploaded to Canvas as a PDF• Data & Code:<ul style="list-style-type: none">○ Upload to Github in separate files with a readme document○ Post link to canvas assignment• References: List all references on Written report using IEEE formatting style.
Written Report	<ul style="list-style-type: none">• Problem Statement/Hypothesis:<ul style="list-style-type: none">○ This section should include the general problem you are attempting to answer, along with a hypothesis that can be tested using the data.○ Include metrics for success

	<ul style="list-style-type: none"> ○ Background information section that contextualized the research project and questions • Methodology: <ul style="list-style-type: none"> ○ Give a detailed outline of the methods that will be used during your analysis, including the models used, cleaning performed, and challenges faced. • Results/Implications: <ul style="list-style-type: none"> ○ Present your results in a clear and concise manner. Make it clear whether your hypothesis was supported or not. ○ Answer the question of how these findings might impact on the situation investigated. • Reflection/Conclusion: <ul style="list-style-type: none"> ○ Include areas for future research in the area and ways that you would change the project in the future. ○ How could your project have been improved?
Code and Analysis	<ul style="list-style-type: none"> • Data Collection: Make sure that the data collection process is well documented, including any choices made involving the scope or missing values. • Visualizations: <ul style="list-style-type: none"> ○ Create visualizations that help you as the researcher and the audience understand the data • Scripts: Include any code that was used to clean the data, create visualizations, run models, or come to conclusions. • Documentation: Make sure to comment on the submitted code so that it is easy to follow.
References	<ul style="list-style-type: none"> • Citations: <ul style="list-style-type: none"> ○ Make sure that all sources are properly cited in IEEE format

	<ul style="list-style-type: none">○ Example code, data sources, informative articles, and any other projects must be credited.
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