CS3 – Case Study Rubric

Due: TBD
Submission format:

- **Upload link to GitHub repo to Canvas**

Individual Assignment

General Description: Submit to Canvas a link to your case study repository

Why am I doing this? This assignment provides an opportunity to apply the lessons learned throughout the course by utilizing time-series analysis to forecast U.S. mortgage rates. As you work through this case study, you will gain hands-on experience with data science techniques in a real-world context, demonstrating how time-series forecasting can be used to understand and predict financial trends. This project allows you to bridge theoretical concepts with practical application, preparing you to use these skills in future data science tasks.

What am I going to do? You can explore the project repository here for datasets, scripts, and documentation to get started and familiar with the content. You will provide a deliverable that covers all the requirements including significant results and your own conclusions. This will include:

- GitHub repository – containing code and any necessary data

How will I know I have Succeeded? You will meet expectations on the CS3 Create Case Study when you follow the criteria in the rubric below.

Spec Category	Spec Details
Formatting	- Repository – A GitHub repo (and cloud storage folder if necessary) containing all materials - Submit a link to the repo - Everything is contained in the repo or linked to it if appropriate. (README.md, LICENSE.md) - Contents - Data and Code - code used for all portions - References - IEEE citation style (also should be submitted as a part of your written portion) - Use pdf format when possible - For code and data products use the appropriate format for whatever it is
README.md	- Goal: Brief summary of what you've produced for the case study, this does not have to be very detailed but should provide enough information to orient people to your repository - Document your file mapping so a viewer can easily navigate your repository
Code	- Goal: Well-documented script that contains the code used to execute your time series model, forecast, and statistical analyses. - Utilize the dataset provided to you in the GitHub - Be sure to include comments so a viewer can understand your process
References	- Goal: Cite any resources (journal articles, websites, etc.) referenced in helping you create your model in IEEE Documentation style. - Include brief annotations under each citation on how each reference informed/helped you for this case study.