

AI/GPT POLICY

For this homework, I used AI as a valuable tool to assist with various aspects of data analysis and visualization. AI helped me refine my approach to the analysis, suggest appropriate machine learning models, and optimize the code for data exploration and visualization.

Additionally, it guided me in evaluating the model's performance through techniques like Mean Squared Error (MSE) and offered suggestions for improving the analysis, including recommendations for future steps such as expanding the dataset and experimenting with more advanced models. Its ability to generate quick insights, explanations, and visualizations significantly enhanced the efficiency and clarity of my work.

I learnt about **Plotly**. It is a powerful and interactive plotting library that allows for the creation of highly interactive visualizations. Unlike Matplotlib, which generates static plots, Plotly plots can be zoomed, panned, and hovered over to display additional information. It's great for creating visually appealing dashboards, interactive charts, and web-based visualizations. In particular, **Plotly** provides easy-to-use functions for creating scatter plots, line charts, and 3D plots, which could be useful for enhancing data exploration and model performance visualizations in my project.

I also learnt about **Statsmodels** – This library provides tools for statistical modeling and hypothesis testing. I learned how to use it for performing linear regression analysis and generating summary statistics for model evaluation. It's particularly useful for understanding the underlying statistical assumptions of the model, such as checking p-values, confidence intervals, and other key metrics, which added a deeper layer of analysis to my work