

# New York City Rental Properties Pricing Market Analysis

Nonso Ezeoma



***Data Analyst***



# New York City Rental Analysis

## **Objective:**

The client is a real estate agency trying to find its place in New York City. The objective is to analyse the New York City rental market to identify trends and insights that can inform both renters and property owners.

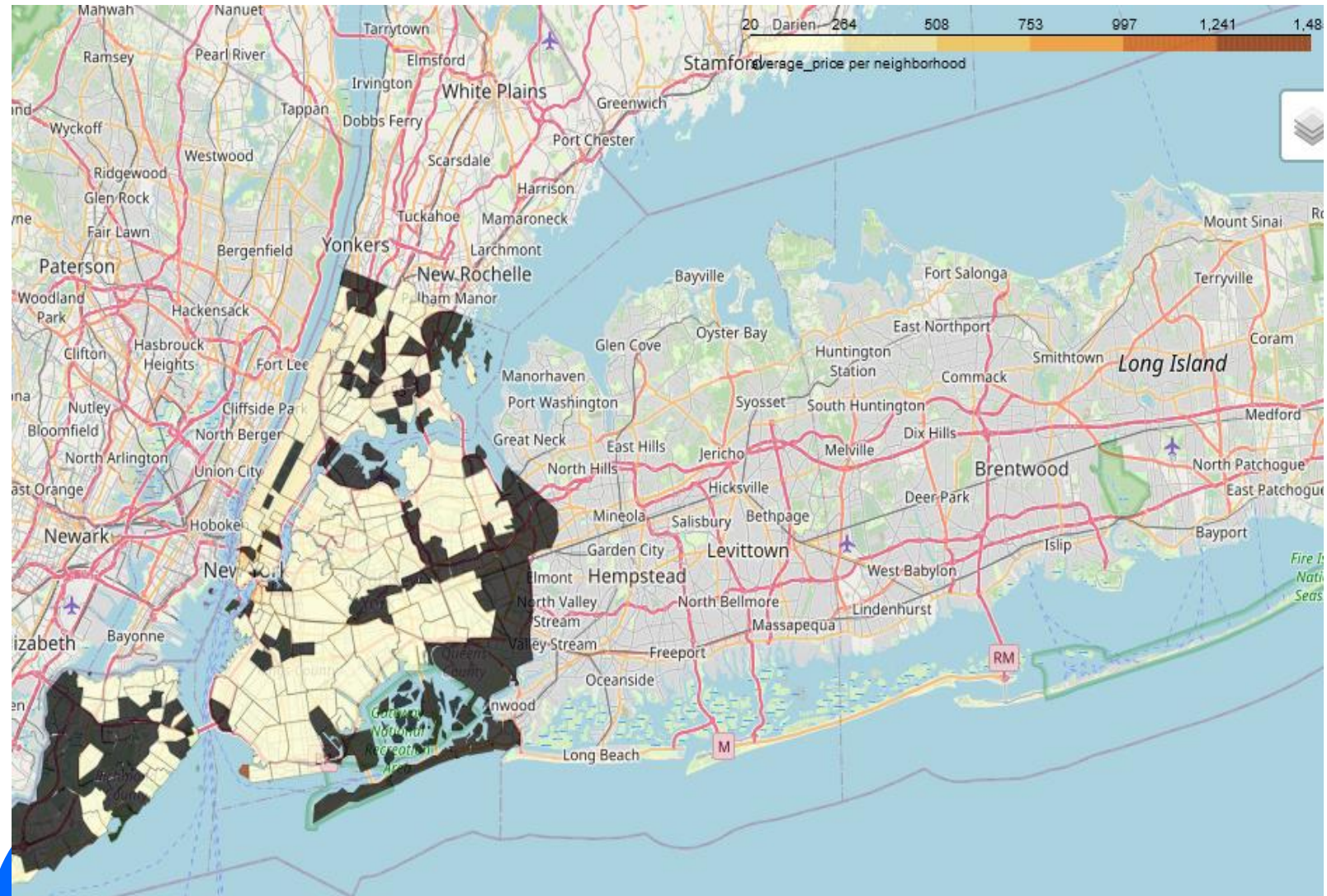
**Tools / Skills:** Data sourcing, Data transformation, Exploratory analysis, Geospatial analysis with Python, Supervised and Unsupervised Machine Learning (Regression, Clustering), Time-series, Tableau visualization

# Analysis Data Preparation

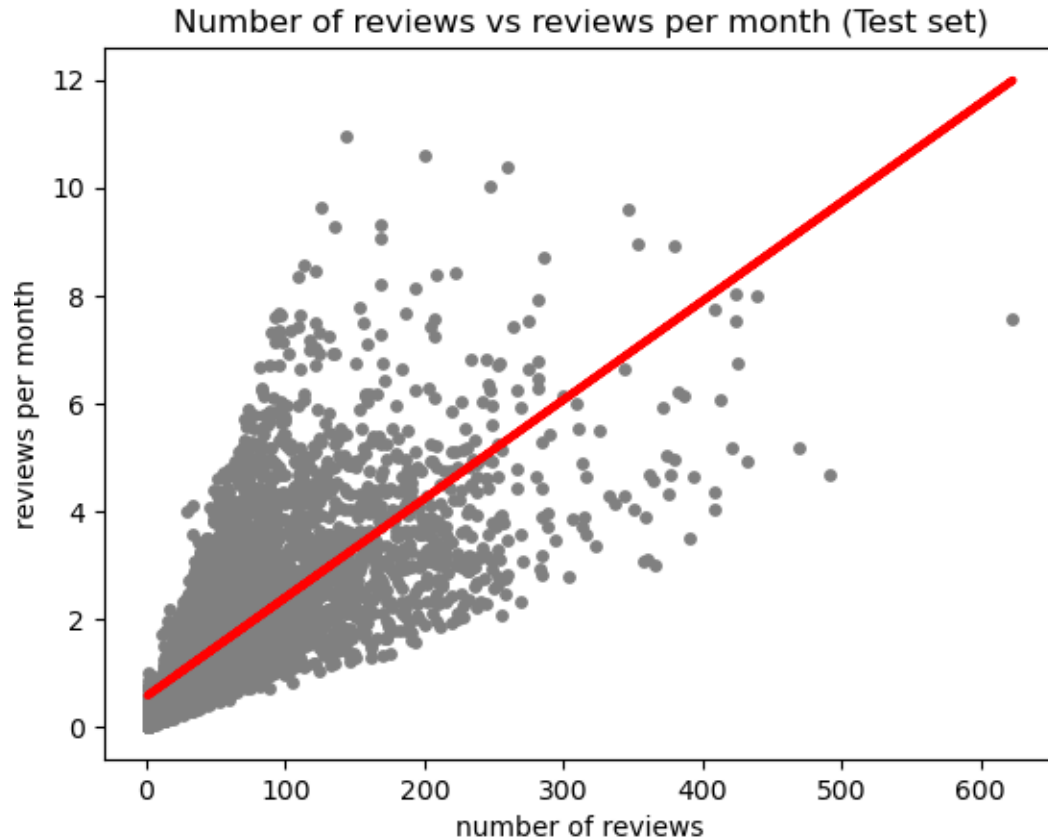
This map shows the overview of average price per neighbourhood of new York City.

The area with 'black map' are areas not represented in the in the map.

From the Map, it is quite clear that most rental accommodation are below \$300



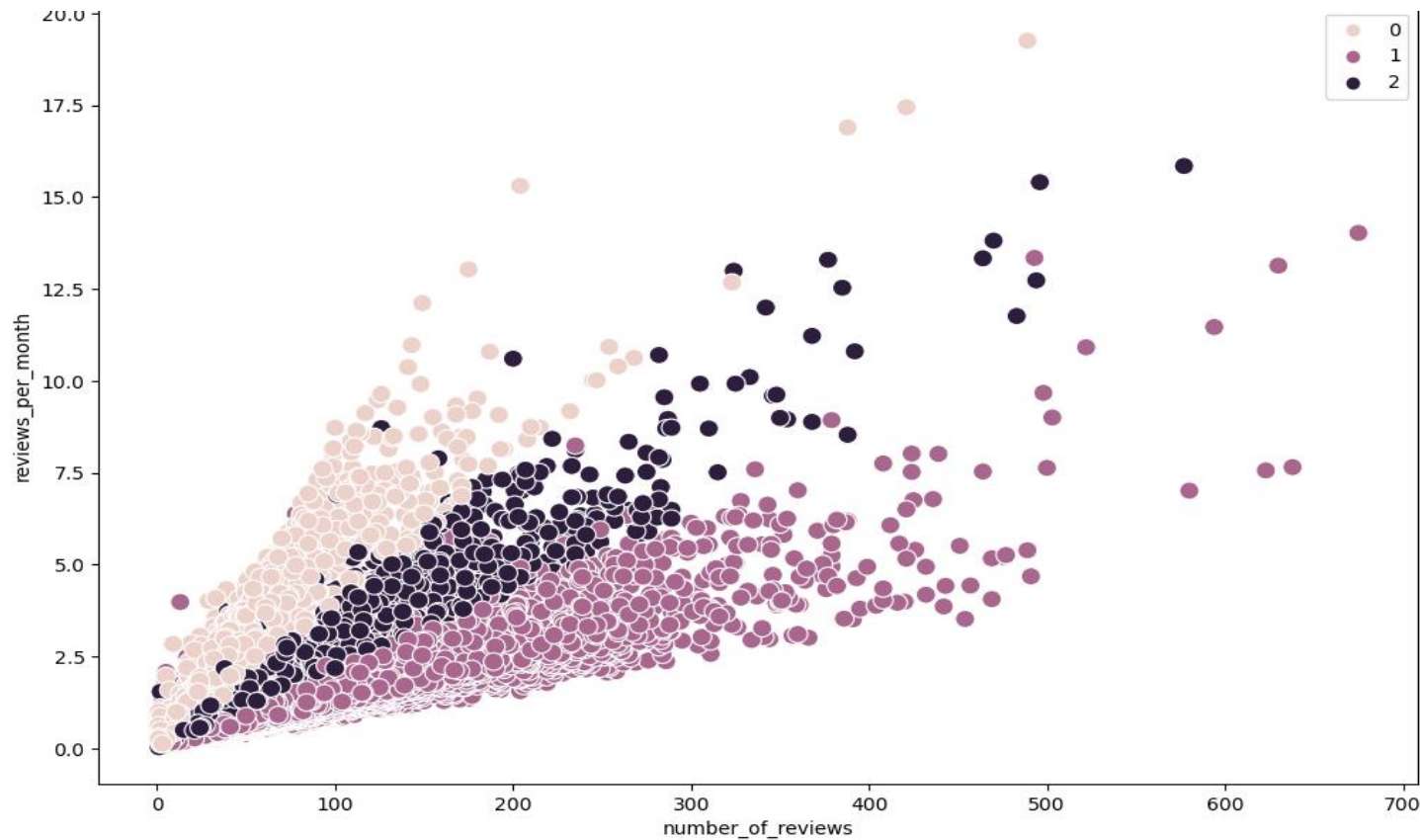
# Supervised Maching Learning: Linear regression



From this chart, we were able to generate our hypothesis  
“does the review per month increase when the number of reviews increases. Is it a contributing factor to high occupancy rate.

Another round of testing was conducted to find whether there's a strong correlation with this hypothesis

# Unsupervised Machine Learning: Difference Clusters:



The chart shows three groups of rental listings by review activity. The lightest cluster has few reviews, suggesting newer or less popular properties.

The middle (1) cluster indicates moderate review activity, and the darkest cluster includes highly reviewed, likely popular listings.

Overlaps and outliers suggest varying popularity and listing age.

# Actions and Recommendation

**When pricing rental properties in New York City Neighbourhood, the following should be considered about the general observations:**

- Popular properties, as indicated by the number of reviews, might not always be the most expensive, suggesting that factors other than price drive demand.

**Limitations of the case study:**

- There weren't enough data points to yield a highly significant result.
- The data contained a limited number of variables upon which to conduct the analysis.

**Recommendation:**

- For rental property owners: Encourage reviews and maintain competitive pricing to increase visibility and turnover.

**Next steps:**

- Accumulate additional observations for these metrics.
- Implement a categorization model to determine if we can forecast costs using the tags we established.
- Examine how extra factors influence property prices within the region.





# Thank you

[Tableau Public - New York City Rental Properties Pricing Case Study](#)

You can access my Tableau Profile on:  
[My Tableau Profile](#).

You can access the GitHub repository at [this link](#).