

Rent Realities:

What Affects Prices, Future Trends, and Smart Choices?

Background

Klang Valley (Malay: *Lembah Klang*) is an urban conglomeration in Malaysia, encompassing **Kuala Lumpur**, and **Selangor** state. This area has been a hot spot for various renters due to its strategic location, and urbanization status.

However, the continuous increase in the cost of living and property prices has caused people to face significant challenges in renting a house (Zainon et al., 2017).

Thus, we examined current trends in rental pricing in Klang Valley from data in `malaysia_house_rental_price_data.csv` to predict future rental movements.

Predict the future movement of rental fee

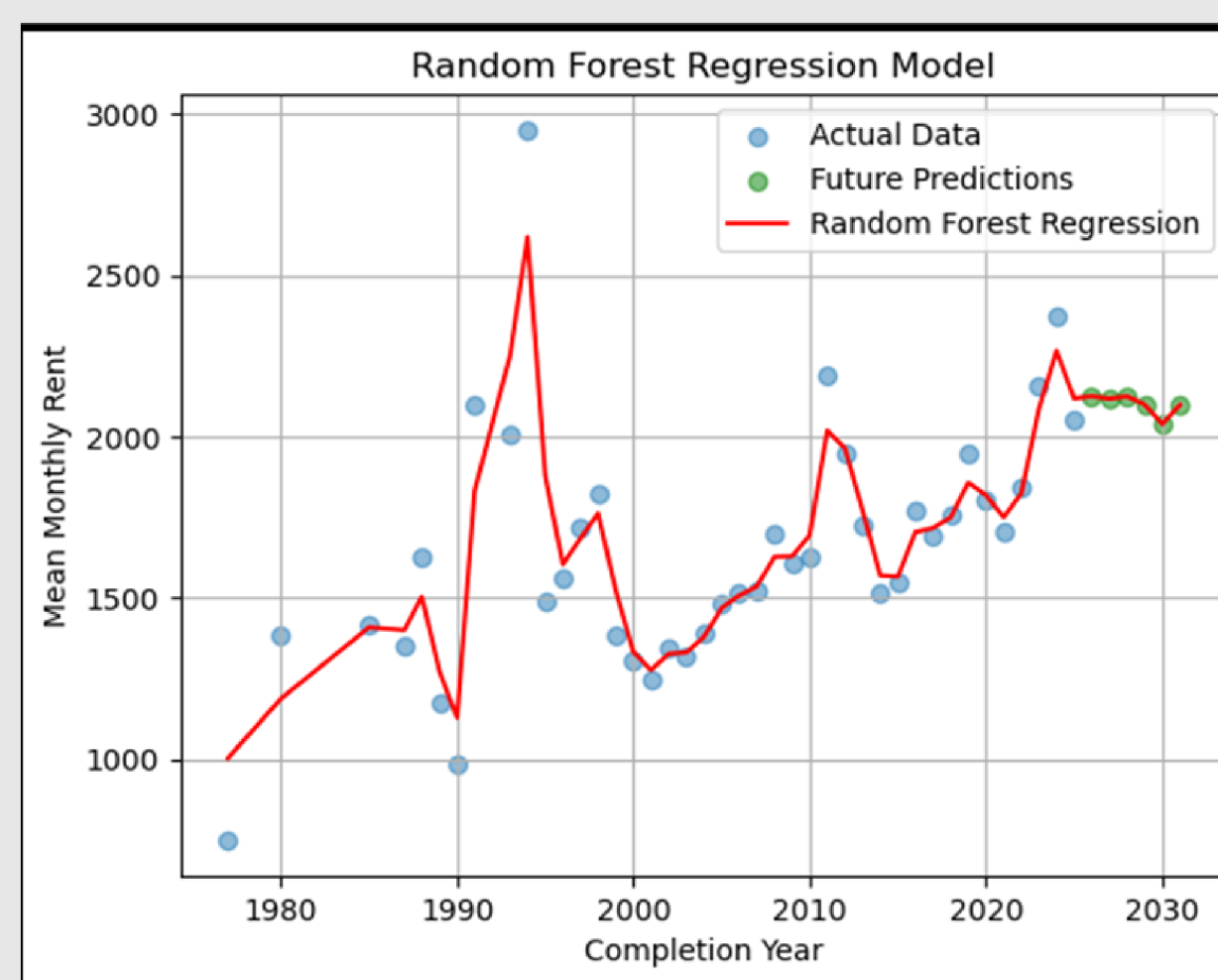


Figure 1: Random Forest Regressor Model

- Prediction is based on the **mean of previous trends**.
- Rent **fluctuates**
- May increase due to inflation
- May decrease due to **unpredictable events** such as financial crisis

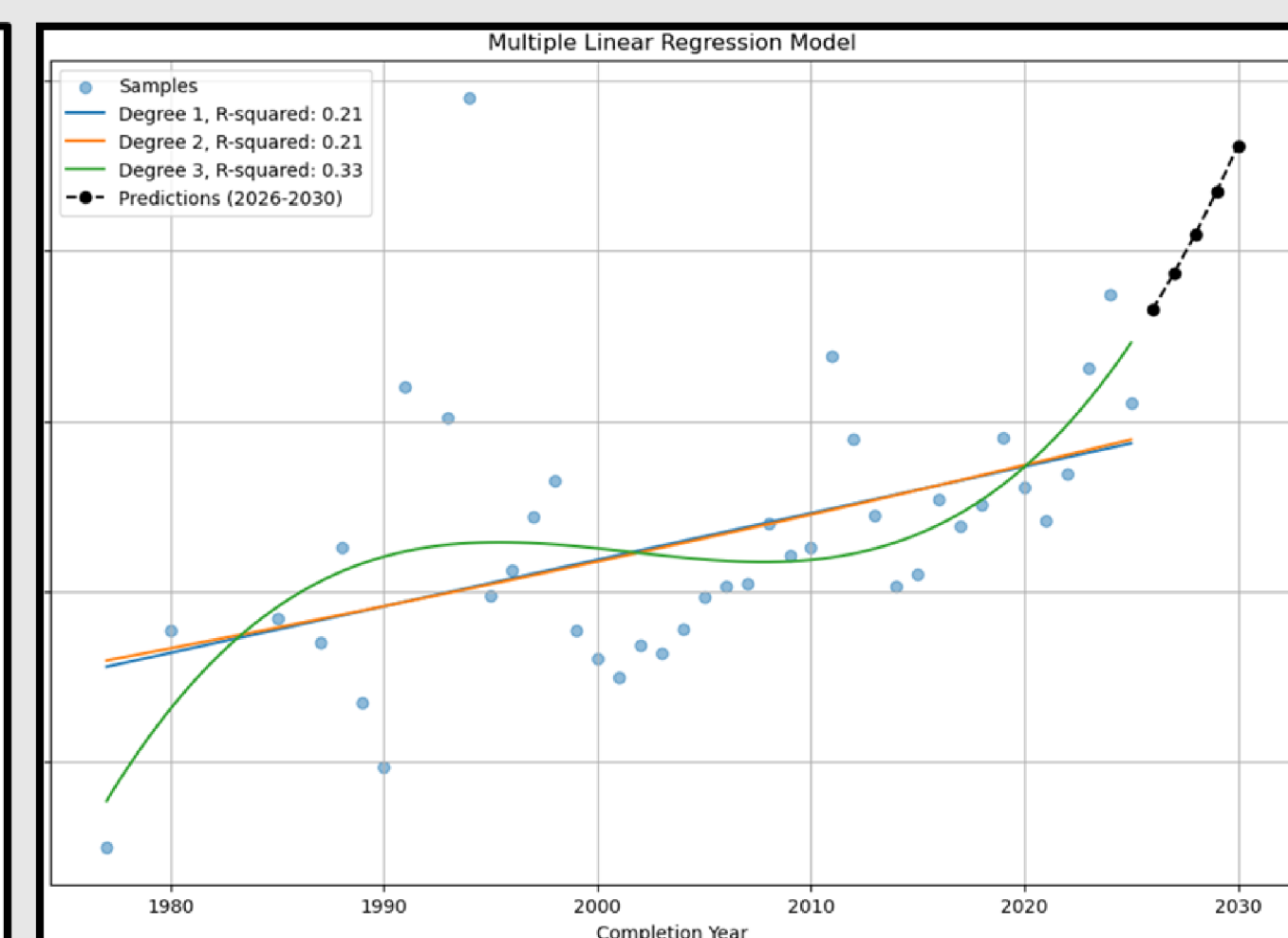


Figure 2: Polynomial Regressor Model

- Prediction is based on **equation (power 3)**
- Rent prices **show an upward trend**
- Rent increases may be due to inflation
- Used for normal circumstances

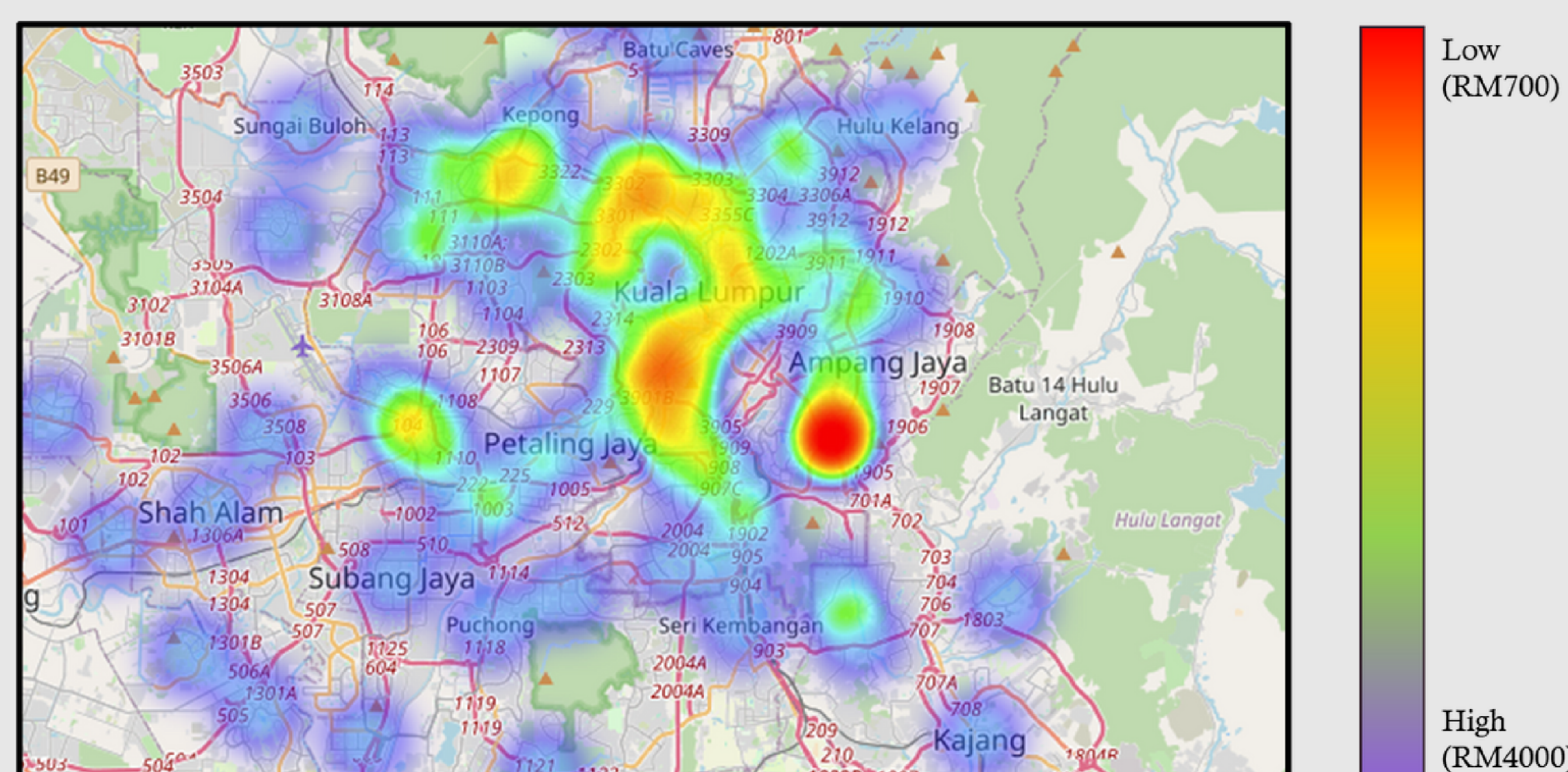
How to find the most suitable rental area ?

From the result of the multiple linear regression model, there are 7 main factors that have to be considered to find a suitable rental area, that are expressed in an equation as below:

$$E(X) = 20.91x_1 - 170x_2 - 14.63x_3 + 122.71x_4 + 1.24x_5 + 21.40x_6 - 19.57x_7 - 41431.6$$

Each value x represents completion year, rooms, parking, bathroom, size, facilities numbers and distance to respective city centre (city centres including Kuala Lumpur, Subang Jaya, Sepang, based on which is nearest).

Potential New Housing Area



- We used a heatmap to analyse **Rent vs City**
- The yellow and green area are high potential areas to due to less congestion of properties.
- A high return of investment (ROI) can be achieved by property developers.

Conclusion & Suggestion

This study provides a complete analysis of the significant **factors** influencing property rental prices while predicting **future rental trends** to make constructive **decisions**.

Suggestions:

- **Tenant** should consider various factors that affects the rental to find a most suitable place to rent
- **Investor** should take note of possible future events that may effect the rental price, like inflation or financial crisis
- **Property developers** should monitor different potential area to build a property

References

Zainon, N., Mohd-Rahim, F. A., Sulaiman, S., Abd-Karim, S. B., & Hamzah, A. (2017). Factors affecting the demand of affordable housing among the middle- income groups in Klang Valley Malaysia. *Journal of Design and Built Environment*, 1-10. <https://doi.org/10.22452/jdbe.sp2017no1.1>