

London Housing Exercise 2.0

Is it possible to accurately predict the median house price for each Borough of London for the year 2025?

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1 Context

Build a model that can accurately predict real estate asset appreciation over 3-5 years. The significance of this model will help institutions/developers optimize capital allocation and increase ROI. The proposed model is based on London Borough Real Estate Data

2 Criteria for success

- Build a model that can predict the median housing prices for each Borough in London for 2025 (within .5% error on CAGR when comparing estimated versus actual each year); e.g. my model predicted a CAGR over 5 years of 1.5%, the actual results were: 1.1%; the delta/error being .4%)
- Determine the most influential variables influencing price (average household income, crime, etc.)

3 Scope of solution space

- Include ancillary data that may influence housing prices (e.g. crime, household income, job availability, etc.)
- Focus on only the London Boroughs for this exercise

4 Constraints within solution space

- Data not being complete enough to optimize the model/accurately predict median housing prices for 2025

5 Stakeholders to provide key insight

- London Datastore

6 Key data sources

- London Datastore

What is the problem you want to solve?

- Accurately predict the median price for each London Borough over the next 3-5 years

Who is your client and why do they care about this problem?

- Real estate developers and retail investors; better understand pricing and anticipated appreciation of each borough; maybe highlight some emerging areas where investments could yield higher than expected returns

In other words, what will your client do or decide based on your analysis?

- Identify emerging trends and help to allocate capital over the next 3-5 years by identifying the best annual returns; this will help with the short-term strategy/tactical approach

What data are you using?

- UK housing, crime, household income, etc.

How will you acquire the data?

- London.gov

Briefly outline how you'll solve this problem. Your approach may change later, but this is a good first step to get you thinking about a method and solution.

- Follow the steps/process outlined in the guided capstone; use a time-series forecasting model
- Complete an extensive EDA to better understanding interdependencies/correlations between variables

