

How much / rental income / ?

Tina Liu



Target Customer

small scale **real estate**
investor

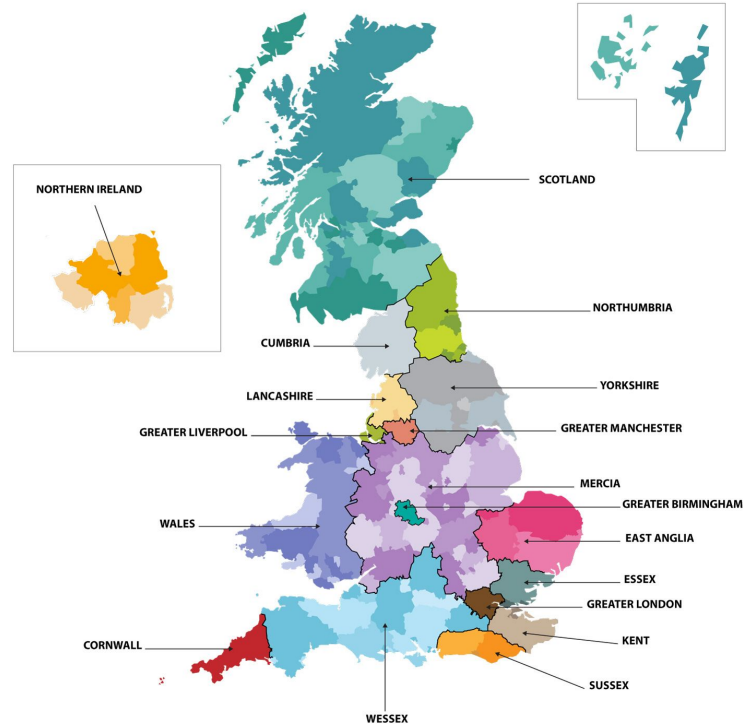
Tom and Lisa are accountants
living and working in London.

They already own their home, and
is looking for a **buy-to-let**
investment to generate some
good investment returns.



Questions going through Tom & Lisa's head...

- Which area to buy?
- How much rent could they get?
- What kind of houses to buy?



predicting rental prices

Aim to **predict the rental income** of a property so investor can use this to calculate a **rental yield%** to compare between possible investments

Data: 70k Zoopla listings in major cities of UK

Model Overview

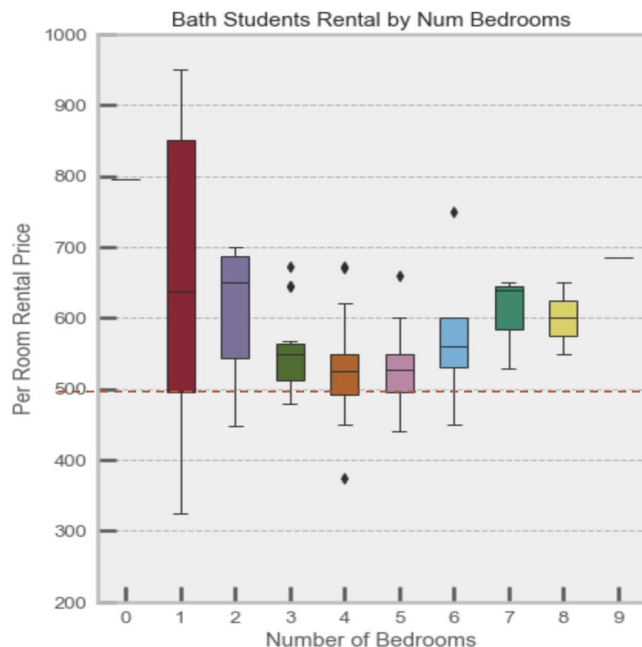
The model tries to predict rental price using Zoopla listings information:

- Location (latitude and longitude)
- Number of bedrooms
- Number of bathrooms
- Number of reception rooms
- Property type
- Whether its a student let
- Furnished or Unfurnished

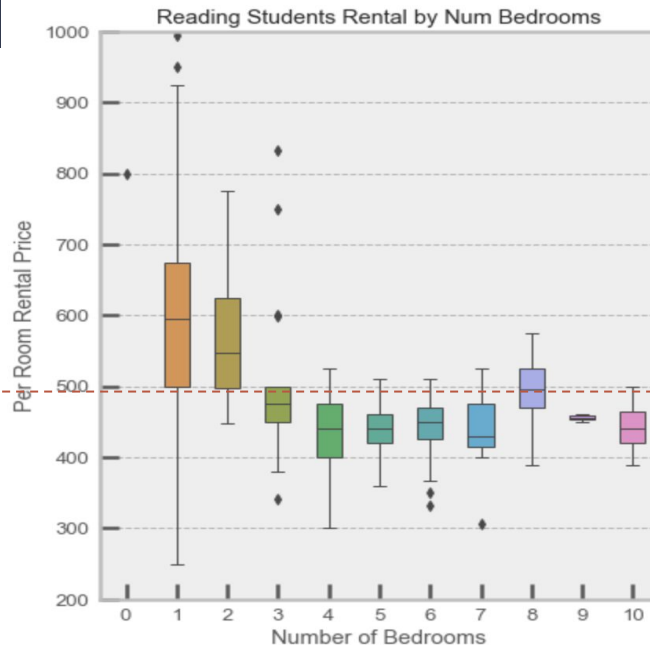
Note: properties with > 10 bedrooms are excluded, as these mansions are likely to behave differently to the average house.

Where should you buy? Bath versus Reading

Bath



Reading



- Student properties achieves higher rents in Bath
- The average 4 bed rents for £2,100 in Bath, £1,750 in Reading

Deal by deal comparison

Deal One: Reading

3 Bedroom, 1 Bathroom
Terraced House*
Near University
Asking Price £270,000

Model predicts rental of
£1,182 per month

Gross Yield of 5.3%



Deal Two: Bath

3 Bedroom, 1 Bathroom
Flat
Bus ride from University
Asking Price £250,000

Model predicts rental of
£1,450 per month

Gross Yield of 6.9%



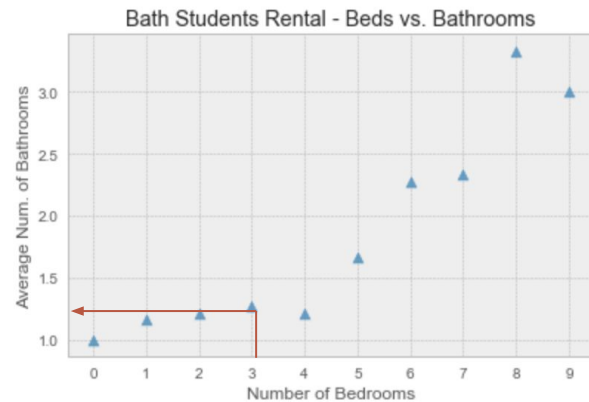
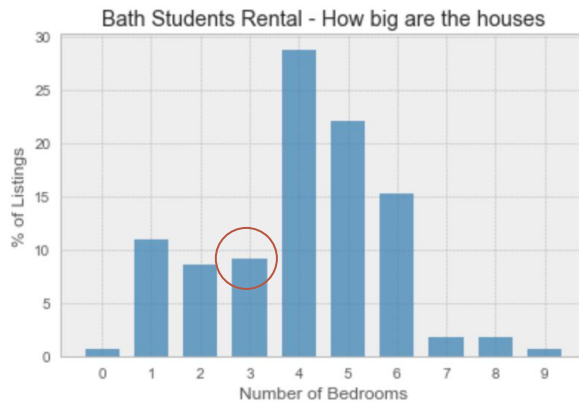
*However worth noting deal one has the potential to be extended to be a 4 bedroom, which is likely reflected in the price

What kind of houses to buy?

In a competitive rental market it always pays to have a
more unique product

For example

- 3 bed student rental in Bath only accounts for 9% of the existing stock, much lower than 4 bed house
- Consider also adding a bathroom or ensuite



Should you add in additional bathroom?



- For 3 bed student rentals in Bath, 73% of the listing has only 1 bathroom.
- Adding an extra bathroom certainly differentiates the property.
- Model also predicts it would **add £70 p.m.** so if the cost of adding an bathroom is £3k, it would generate **28% ROI** (return on investment).

Something definitely worth doing!

Thank you

Appendix

Effectiveness

The “effectiveness” of the model varies largely across UK cities.

It performs **best in South West England**, in cities like Reading, Bristol, Southampton, where the model R^2 is around 80% on the test dataset.

It performs **worst in London**, where R^2 is around 35%.

In the Midlands, performance is mixed, while the model works well in Coventry, Leamington Spa and Peterborough (72% R^2), it performs poorly for Birmingham, Leicester.

London being such a diverse city with huge price ranges between prime areas and non-prime areas that are often close to each other, the model struggles to capture the factors that matter most in rental prices.

Findings & Limitations

Model only has high predictive power for certain U.K. cities and does not work well in London and most of the Midlands

Further Study

In order to improve the model we need to input more features that would enable us to capture the “nice neighbourhoods” in a city.