Analyzing San Diego's Housing Auction Data

By: David Gonzales
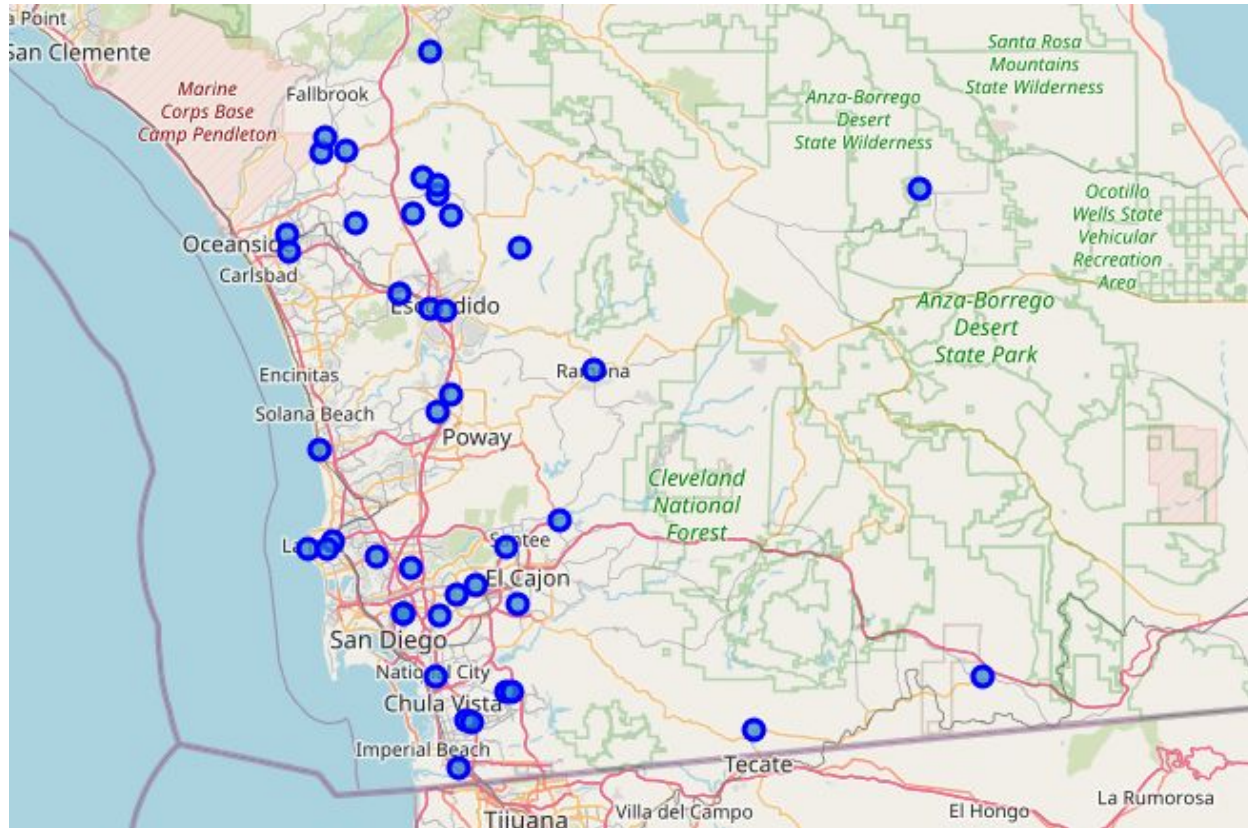
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Agenda

- Background
- Data Sources
- Modeling
- Conclusion
- Limitations
- Recommendations

Background

- The San Diego County housing market is red hot
- There are plenty of opportunities for real estate investors
- One opportunity can be found in real estate auctions

The problem is… how do we rapidly and effectively find out which deals are good and which should be avoided? How do we prepare ourselves before an auction?
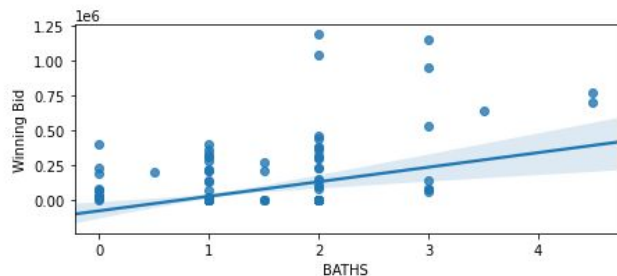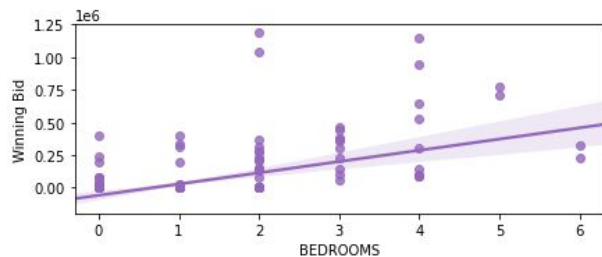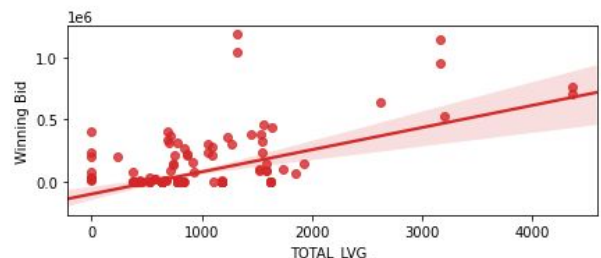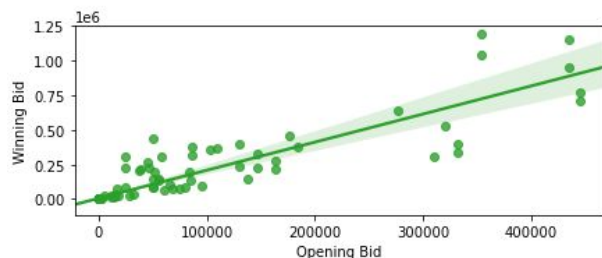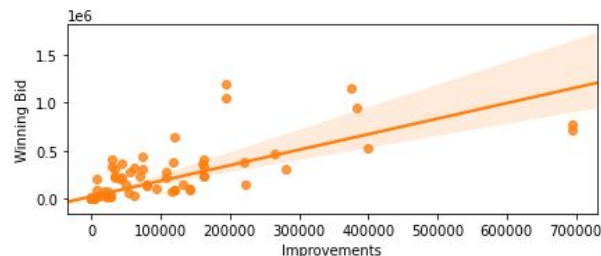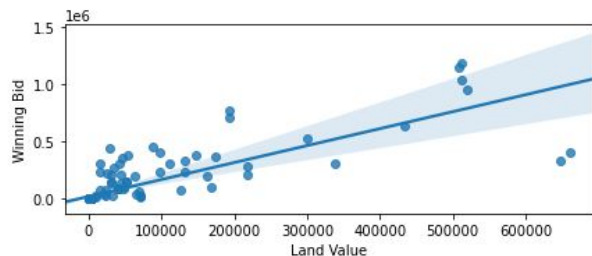
Which property to invest in?

Data Sources

- The answer lies in the **DATA**!
- Historical auction data provides a history of winning bids
- Tax assessor parcel data provides lots of details about a home
- Foursquare data can tell you more about a surrounding neighborhood
- Housing sales data allows you to predict the market value of a home

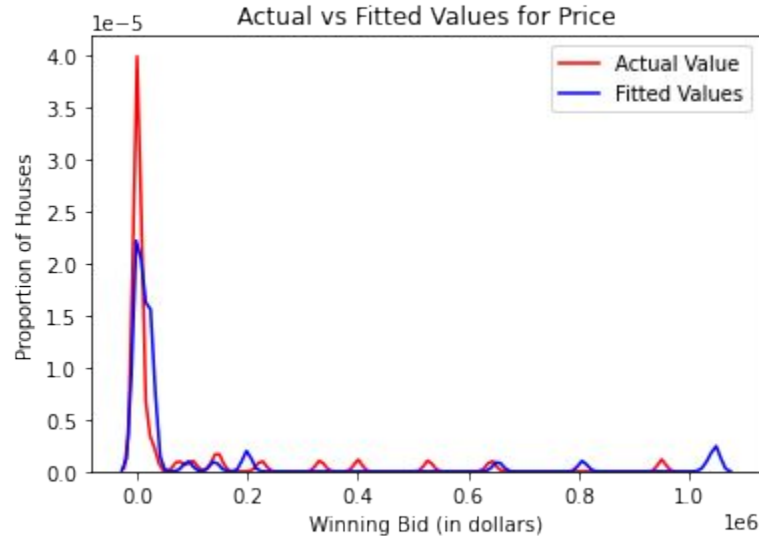# Modeling

- Modeling allows us to harness the information from our data sources to guide us towards where the most optimal bid price may be
- With lots of good data comes lots of bad data though
- With investment into this tool, we can avoid the bad data and optimize the good data

Key variables can show us the way...

Model Evaluation

- How do we know our model works?
  - R^2 Score = 0.73

Conclusion

- We have the roadmap to be competitive in live auction bids
- We can utilize large amounts of data to guide our bidding
- We can utilize sales data to estimate a home's market value
- With these three tools we can increase our chances of increasing profits in a data-driven way

Limitations

- We need the funding to further iterate the model and incorporate the Foursquare data
- Housing sales data needs to be downloaded and parsed for all of San Diego County and for as far back in time as we can
- The tool is not scalable to everyone, but can be used by a team of investors over and over again

Recommendations

- Introduce and test new variables that can improve our model
  - Foursquare Data
  - Predicted home market value
  - Number of people participating at each auction
- Explore other types of models
- Include land-only type properties in the next iteration of our model

THANK YOU!