

CLT Real Estate Pricing

A Team4 Project

Follow Along @

<https://bmedford01.github.io/RealEstateProject/index.html>



Questions to Answer

What trends exist in residential real estate prices in the Mecklenburg area?

What can we expect future home prices to be based on historical data?



Data Utilized

- Redfin dataset for real estate since 2017

<https://www.redfin.com/news/data-center/>

- Realtor.com historical dataset dating back to 2016 including zip codes

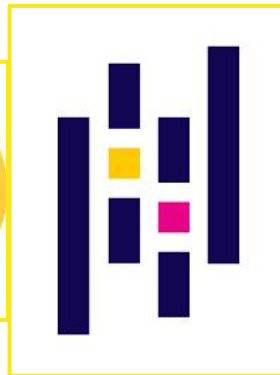
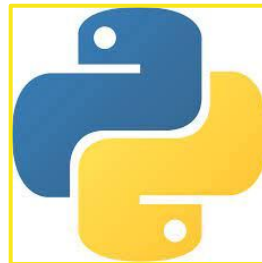
<https://www.realtor.com/research/data/>

REDFIN

realtor.com®

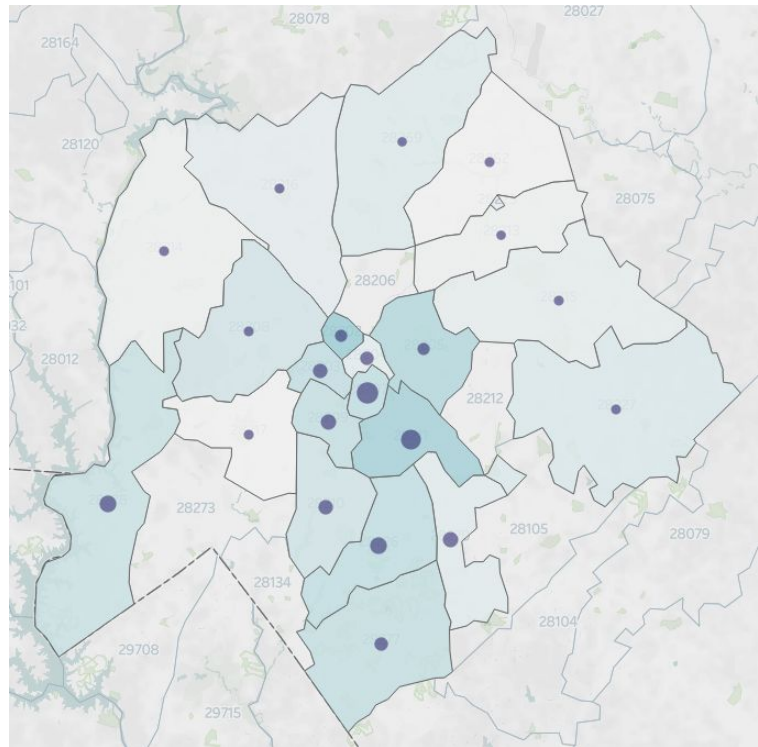
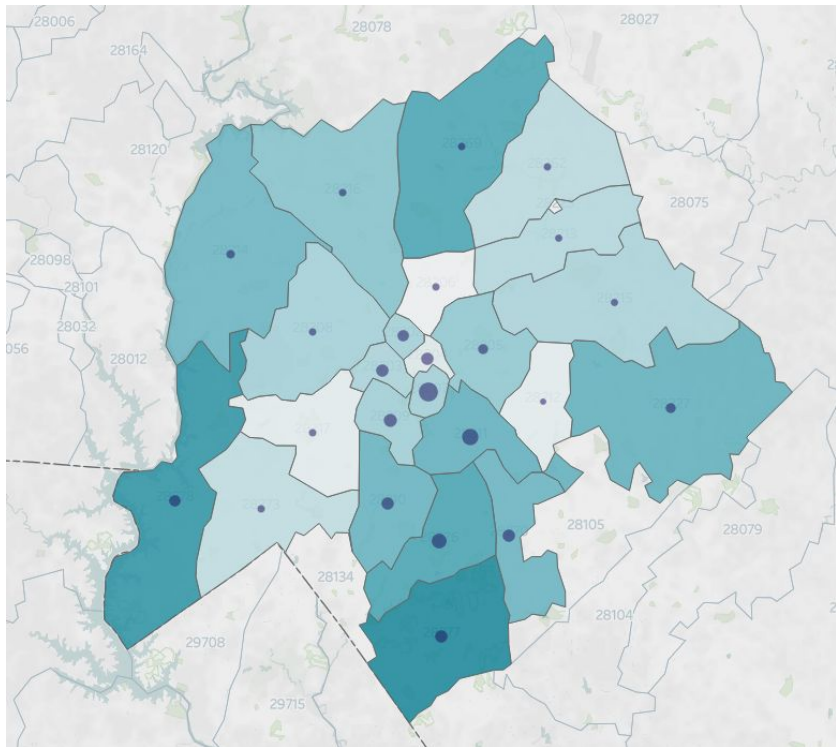
Data Exploration and Cleanup

- Filtering for Charlotte/Mecklenburg county
- Updating Date Fields to usable format
- Cleaning up general formatting
- Selecting fields of interest
- Renaming Columns
- Export to CSV



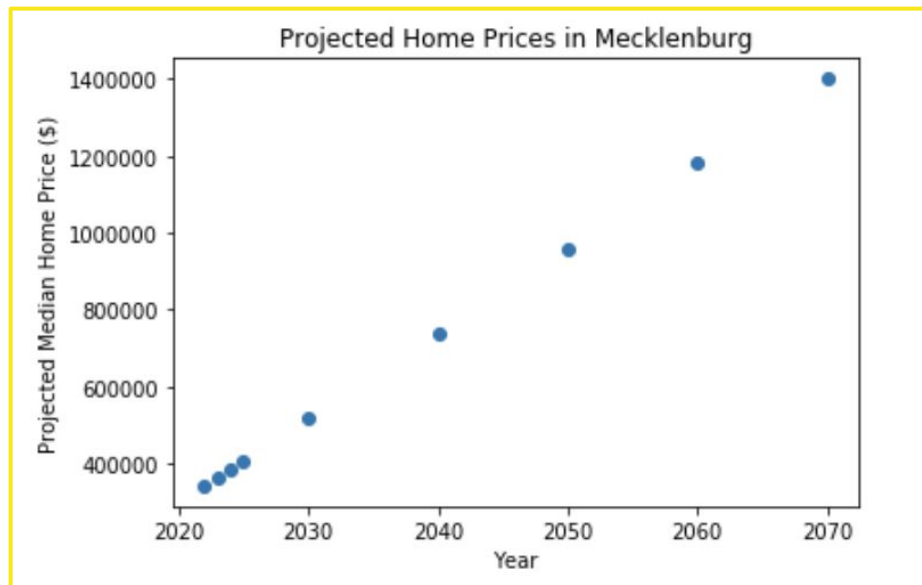
	Year/Month	Date	Year	Month	Zip Code	City	State	Median Listing Price	Average Listing Price	Active Listing Count	Median Days on Market	New Listing Count	Price Increased Count	Price Reduced Count	Pending Listing Count	Median Price per Square Foot (List Price)	Median Square Feet
0	202104	2021-04-01	2021	April	28213	charlotte	nc	280117.50	285710.02	16	11.0	36	0	0	28	138.05	2,109.0
1	202104	2021-04-01	2021	April	28262	charlotte	nc	370700.00	337630.05	13	12.5	12	0	0	26	162.75	2,262.0
2	202104	2021-04-01	2021	April	28207	charlotte	nc	1299250.00	1530404.68	52	90.5	20	0	12	45	447.01	2,740.5
3	202104	2021-04-01	2021	April	28202	charlotte	nc	409950.00	559791.09	85	48.0	28	0	20	41	343.04	1,221.5
4	202104	2021-04-01	2021	April	28226	charlotte	nc	630517.50	949039.63	52	38.5	48	4	16	78	231.56	2,870.0

Data Visualizations



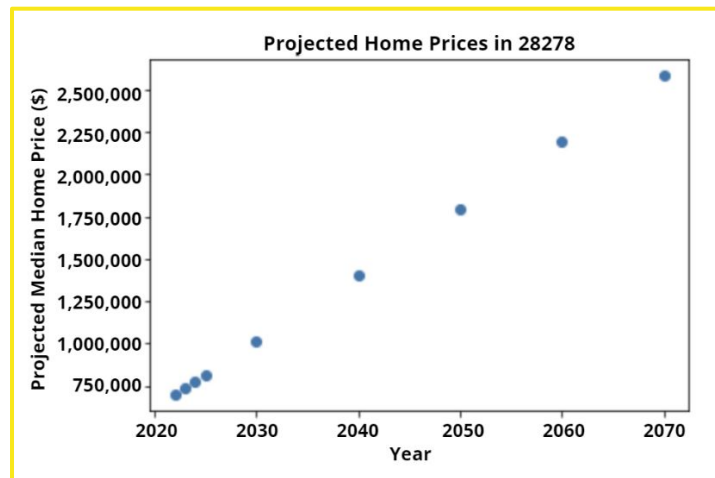
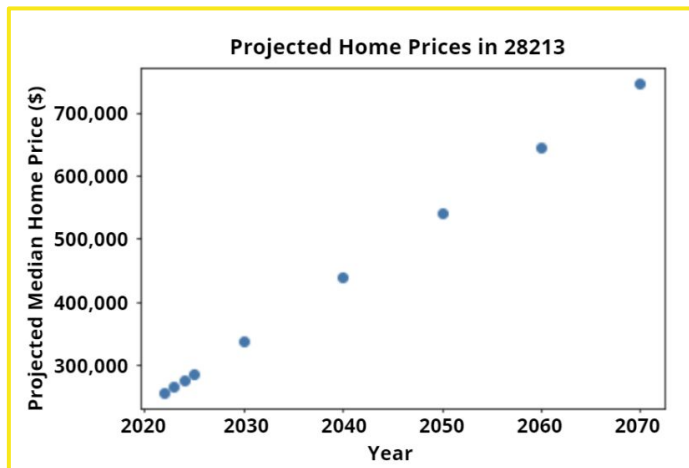
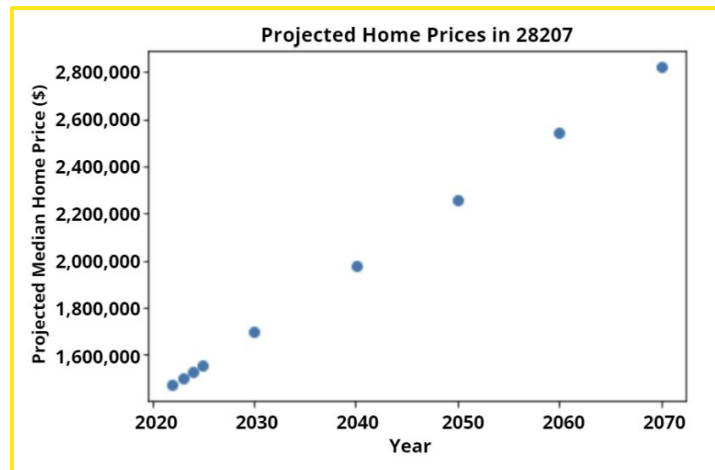
Machine Learning

- Utilized Median Sale Price to predict future home prices
- Used sklearn and matplotlib
- Model R^2 score of 0.81



Machine Learning

- Utilized Median List Price to predict future list prices/home prices
- Selected Zip Codes of Interest to predict future prices
- Model R2 scores ranging from 0.11 to 0.47



For the visuals, let's check out the website!

<https://bmedfordo1.github.io/RealEstateProject/>

Conclusions & Implications

Limitations:

- Datasets date back to 2016 and 2017

Observations:

- Charlotte real estate as a whole is growing rapidly
- Less established areas are gaining popularity
- Slower growth in expensive areas
- Summer months are the most popular for purchasing a home
- Home sales were down by about 50% during 2020 due to lack of inventory