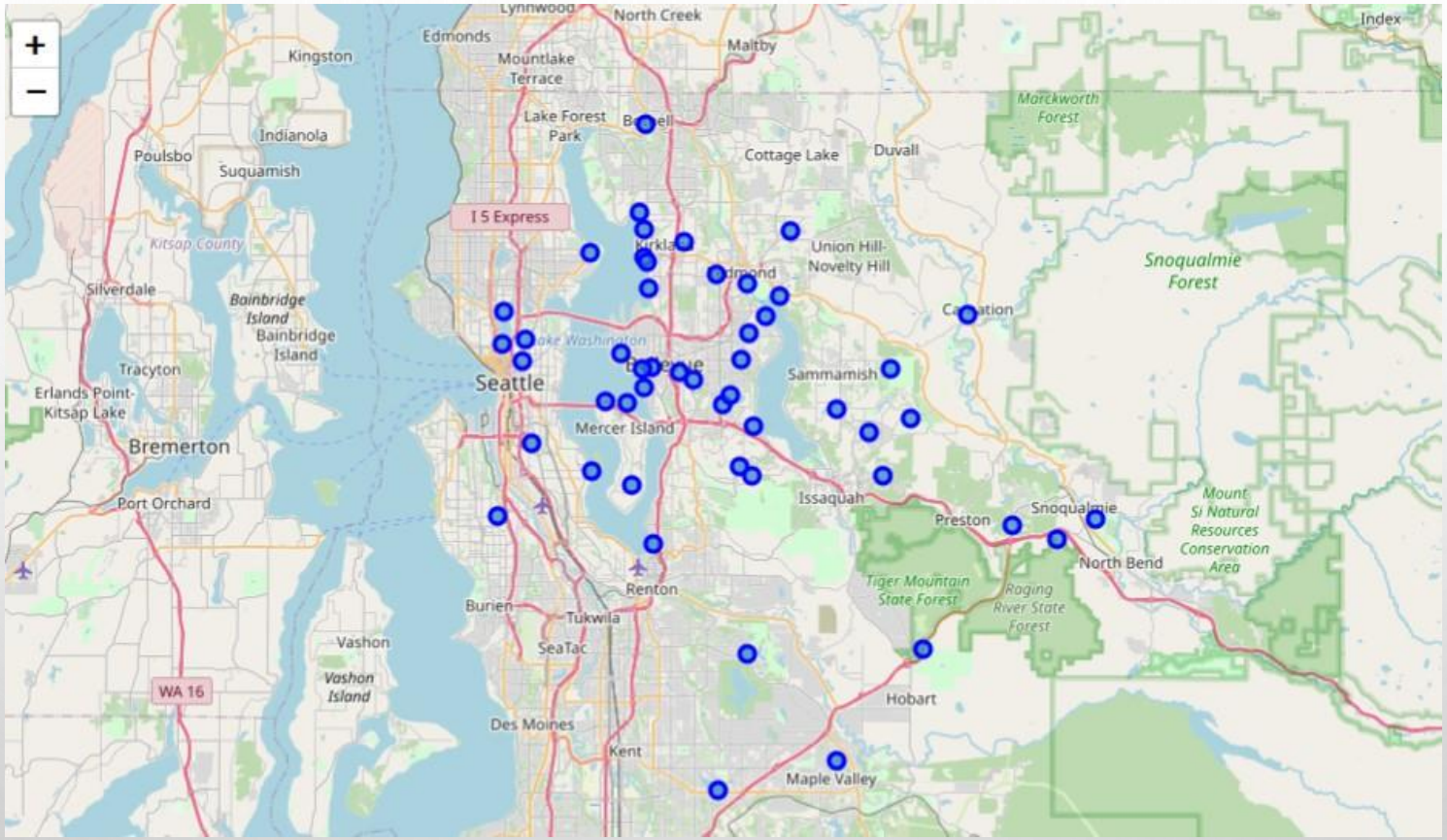
HOUSING PRICES AND PARK PROXIMITY

A STUDY OF THE IMPACT OF PARKS ON HOUSING PRICES IN KING COUNTY, WASHINGTON

EXECUTIVE SUMMARY

- THIS PROJECT PROVIDES AN ANALYSIS OF HOUSING PRICES COMPARED TO DISTANCE FROM POPULAR PARKS IN KING COUNTY, WASHINGTON
- HOUSES FROM ZIP CODES WITH AVERAGE PRICES CLOSE TO THE OVERALL MEDIAN, AS WELL AS SIZES CLOSE TO THE OVERALL MEDIAN WERE SELECTED
- THE 50 MOST POPULAR PARKS WERE ALSO SELECTED
- THE MINIMUM DISTANCE OF EACH HOUSE TO A PARK WAS COMPARED TO HOUSE PRICES TO ANALYZE ANY RELATIONSHIP BETWEEN THE TWO
- THE CONCLUSION WAS THAT THERE WAS LITTLE RELATIONSHIP BETWEEN HOUSE PRICES IN THIS PARTICULAR RANGE AND THE DISTANCE FROM THE MOST POPULAR PARKS

KING COUNTY PARKS DATA



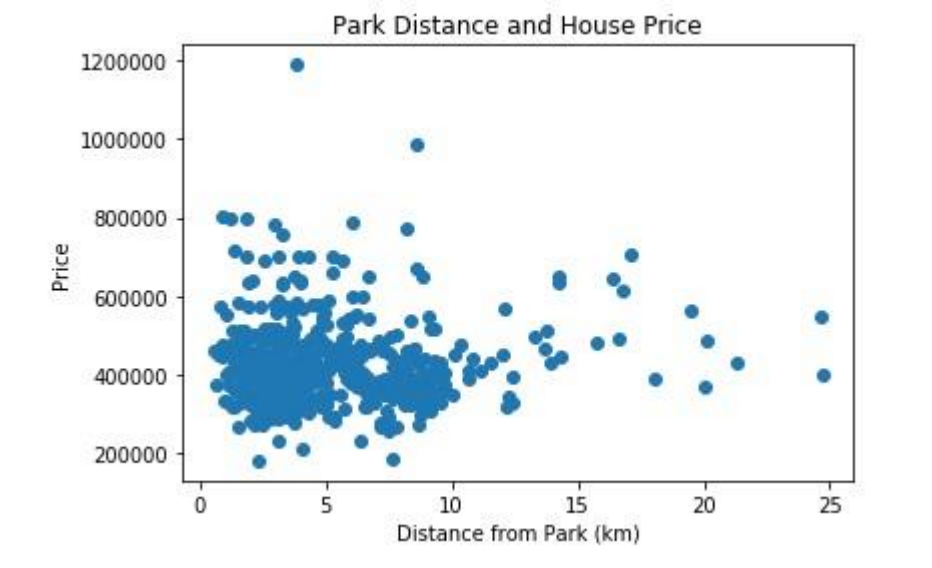
- FOUR SQUARE WAS USED TO GET THE 50 MOST POPULAR PARKS IN KING COUNTY, WASHINGTON

HOUSING DATA

zipcode	price
98059	493552.532051
98011	490351.466667
98070	487479.627119
98125	469455.770732
98166	464231.838583
98028	462480.035336
98014	455617.112903
98045	439471.081448
98019	424788.747368
98126	424706.355932
98155	423725.695067
98010	423665.990000
98056	420890.549261
98118	417637.433071

- THE MEDIAN HOUSE PRICE FOR THE OVERALL DATA SET WAS $450,000 AND THE MEDIAN HOUSE SIZE WAS 1,910 SQ FT.
- HOUSES WERE LIMITED TO THOSE WITHIN ZIP CODES THAT HAD AVERAGE PRICES BETWEEN $400,000 AND $500,000.
- HOUSES WERE ALSO LIMITED TO THOSE BETWEEN 1,800 AND 2,000 SQ FT.
- THE RESULTING DATA SET HAD 516 HOUSED IN 14 DIFFERENT ZIP CODES.

METHODOLOGY



- THE LATITUDE AND LONGITUDE FOR EACH HOUSE WAS COMPARED TO THE LATITUDE AND LONGITUDE FOR EACH PARK TO GET A DISTANCE
- THE MINIMUM DISTANCE FOR EACH HOUSE TO A PARK WAS FOUND
- THE SCATTERPLOT ABOVE SHOWS THE RESULTING DISTANCES AND THE PRICES OF THOSE HOUSES

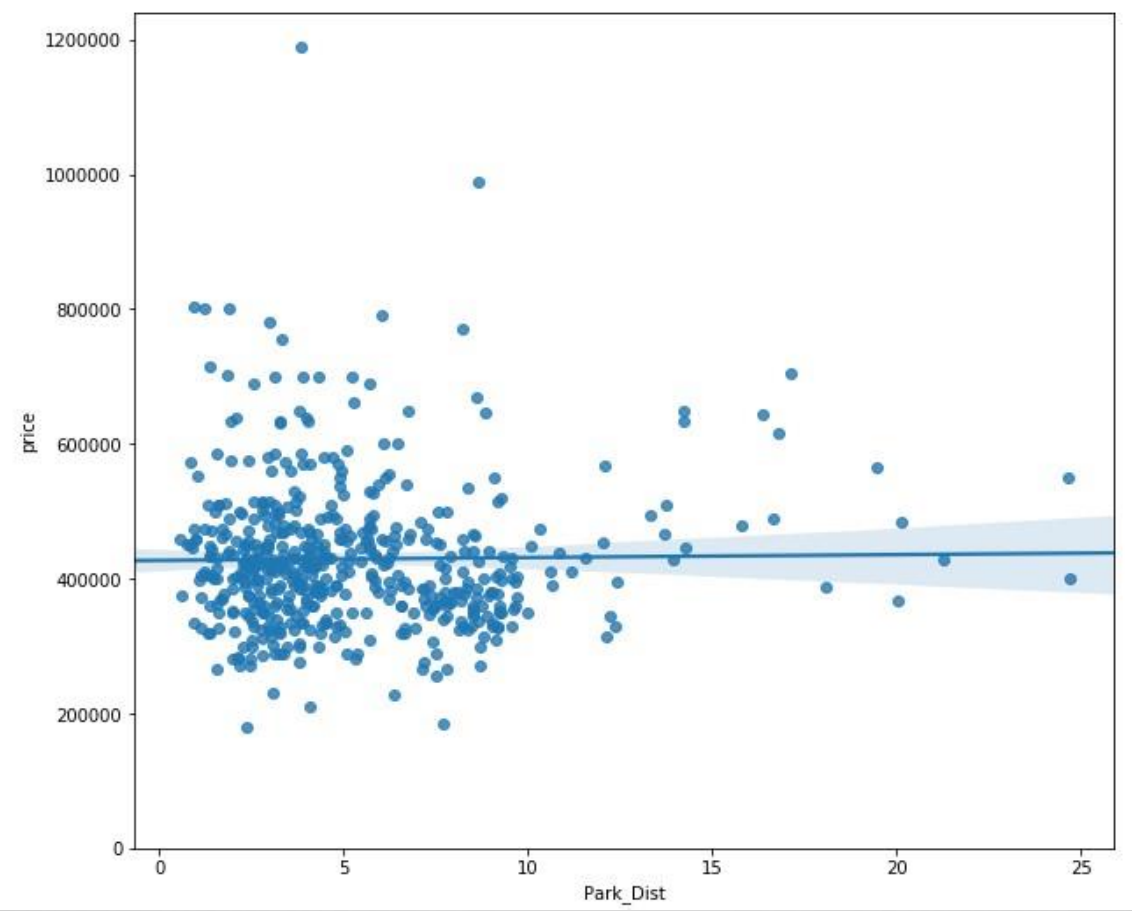
RESULTS

	Park_Dist	price
Park_Dist	1.000000	0.014167
price	0.014167	1.000000

PRICE = 427,129.99 + 430.26(PARK DISTANCE)

- THE CORRELATION MATRIX ABOVE SUGGESTS THAT THERE IS LIMITED RELATIONSHIP BETWEEN PARK PROXIMITY AND HOUSE PRICES
- A REGRESSION ANALYSIS SHOWS A RELATIONSHIP, HOWEVER THE R-SQUARED IS 0.0002 AND THE MEAN SQUARED ERROR WAS 11630000687.38

RESULTS



- THE SCATTERPLOT ABOVE SHOWS THE DISTRIBUTION OF HOUSE PRICES AND PARK DISTANCES ALONG WITH THE REGRESSION LINE

RESULTS

- NUMBER OF TEST SAMPLES : 155
- NUMBER OF TRAINING SAMPLES: 361
- TEST RSQ: -0.0083058388958163 75
- TRAIN RSQ: 0.0014874621868116167

- THE SECOND REGRESSION ANALYSIS WAS DONE UTILIZING A SPLIT OF THE DATA BETWEEN TRAINING AND TESTING DATA
- THE ABOVE RESULTS SHOW THAT THIS ANALYSIS ALSO SHOWS A LACK OF A RELATIONSHIP BETWEEN HOUSE PRICES AND PROXIMITY TO POPULAR PARKS
- A CROSS VALIDATION TEST WAS ALSO CONDUCTED WITH A MEAN CROSS VALIDATION SCORE OF -0.0068

DISCUSSION

- THE RESULTS INDICATE THAT THAT PROXIMITY TO PARKS IS NOT AN INFLUENTIAL FACTOR IN HOUSING PRICES IN KING COUNTY, WASHINGTON
- THE MEDIAN AND AVERAGE DISTANCES FROM PARKS WERE HIGHER THAN EXPECTED AT 4.2 KM AND 5.2 KM, RESPECTIVELY
- THE ELIMINATION OF ZIP CODES WITH HIGHER AVERAGE HOUSE PRICES WHILE ONLY UTILIZING THE MOST POPULAR PARKS MAY INCREASE THE DISTANCE FROM PARKS AND DECREASE ANY RELATIONSHIP
- ADDITIONAL STUDIES OF HOUSE PRICES IN MORE EXPENSIVE AND LESS EXPENSIVE ZIP CODES COULD HELP FIND ANY RELATIONSHIP BETWEEN HOUSE PRICES AND PARK PROXIMITY OR CONFIRM THE LACK OF RELATIONSHIP

CONCLUSION

- HOUSES IN ZIP CODES WITH MEDIAN TO AVERAGE PRICES ARE NOT SIGNIFICANTLY INFLUENCED BY PROXIMITY TO POPULAR PARKS
- REAL ESTATE PROFESSIONALS AND CITY PLANNERS MAY NOT FIND PARK PROXIMITY A USEFUL FACTOR IN PRICING HOUSES OR AN ATTRACTIVE FEATURE FOR POTENTIAL BUYERS
- THE LACK OF RELATIONSHIP COULD BE LIMITED TO THE PARTICULAR SUBSET OF HOUSES AND PARKS USED AS THE MEDIAN AND AVERAGE DISTANCES TO THE CLOSEST PARK WAS HIGHER THAN EXPECTED