

# **HOUSE SALE PRICE PREDICTION MODEL FOR AMES, IOWA**



# TOPICS OF DISCUSSION

- Zillow Platform introduction
- Objectives of the analysis
- Model Accuracy and Score
- Features affecting house prices
- Increasing house value features
- Neutral house value features
- Decreasing house value features
- Recommendations to increase house value
- Conclusions

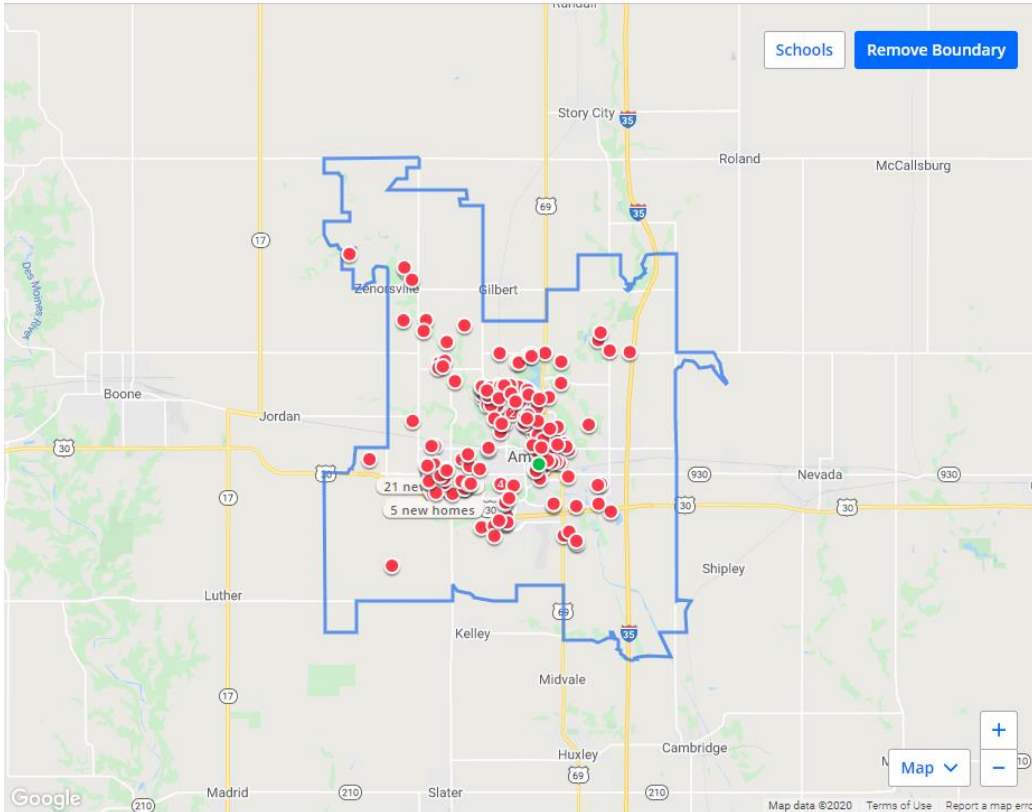
# ZILLOW PLATFORM

Buy Rent Sell Home Loans Agent finder



Manage Rentals Advertise Help Sign in

Ames, IA



Price cut: \$11,900 (Jun 24)

CENTURY 21 SIGNATURE-Ames

**\$228,000** 2 bds | 4 ba | 1,657 sqft  
142 Wilder Pl, Ames, IA 50014  
● Townhouse for sale

2 days on Zillow

Century 21 Signature Real Estate

**\$178,000** 3 bds | 2 ba | 1,167 sqft  
1309 Marston Ave, Ames, IA 50010  
● House for sale

9 days on Zillow

CENTURY 21 SIGNATURE-Ames

**\$165,500** 4 bds | 2 ba | 1,754 sqft  
804 Grand Ave, Ames, IA 50010  
● House for sale

5 days on Zillow

CENTURY 21 SIGNATURE-Ames

**\$385,500** 4 bds | 4 ba | 2,733 sqft  
2181 Ashmore Dr, Ames, IA 50014  
● House for sale

Open: 7/12 1-2:30pm

Friedrich Iowa Realty

**\$319,900** 4 bds | 3 ba | 1,975 sqft  
1021 Top O Hollow Rd, Ames, IA 50010  
● House for sale

13 days on Zillow

Hunziker & Assoc.-Ames

**\$177,500** 3 bds | 2 ba | 1,376 sqft  
1207 N 2nd St, Ames, IA 50010  
● House for sale

# ZILLOW PLATFORM



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**\$182,500** 3 bd | 2 ba | 1,298 sqft

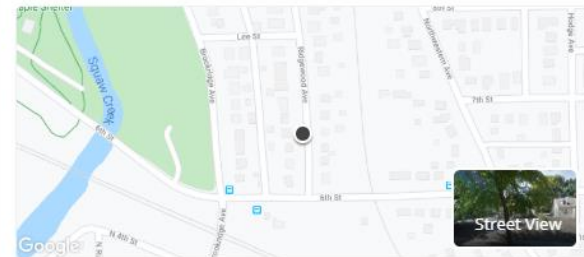
617 Ridgewood Ave, Ames, IA 50010

● For sale by owner | Zestimate®: \$190,184

Est. payment: \$943/mo [Get pre-qualified](#)

[Contact Agent](#)

[Overview](#) [Facts and features](#) [Home value](#) [Price and tax history](#)



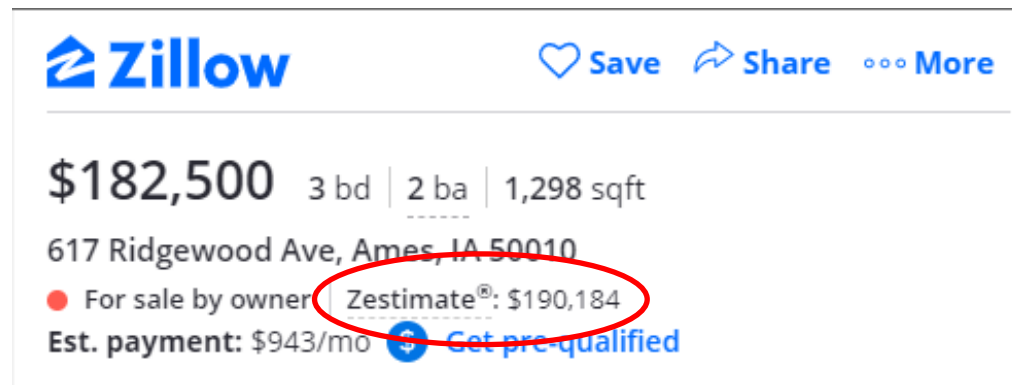
Time on Zillow **6 days** | Views **2,075** | Saves **78**

Charming Bungalow with open front porch near Brookside Park. Featuring 3+ BRs, 1.5 baths, eat-in kitchen, formal living area and hardwood floors throughout. Potential 4th BR in main floor office. Well insulated with new high-efficiency furnace and AC. New electric service panel and radon mitigation system. Back entry leads to spacious double garage with alley access. Quiet neighborhood. Convenient location within walking distance to Main Street shopping district, Wheatsfield Grocery, Brookside Park, ISU campus, and Furman Aquatic Center. Immediate possession. \$182,500.



# OBJECTIVES

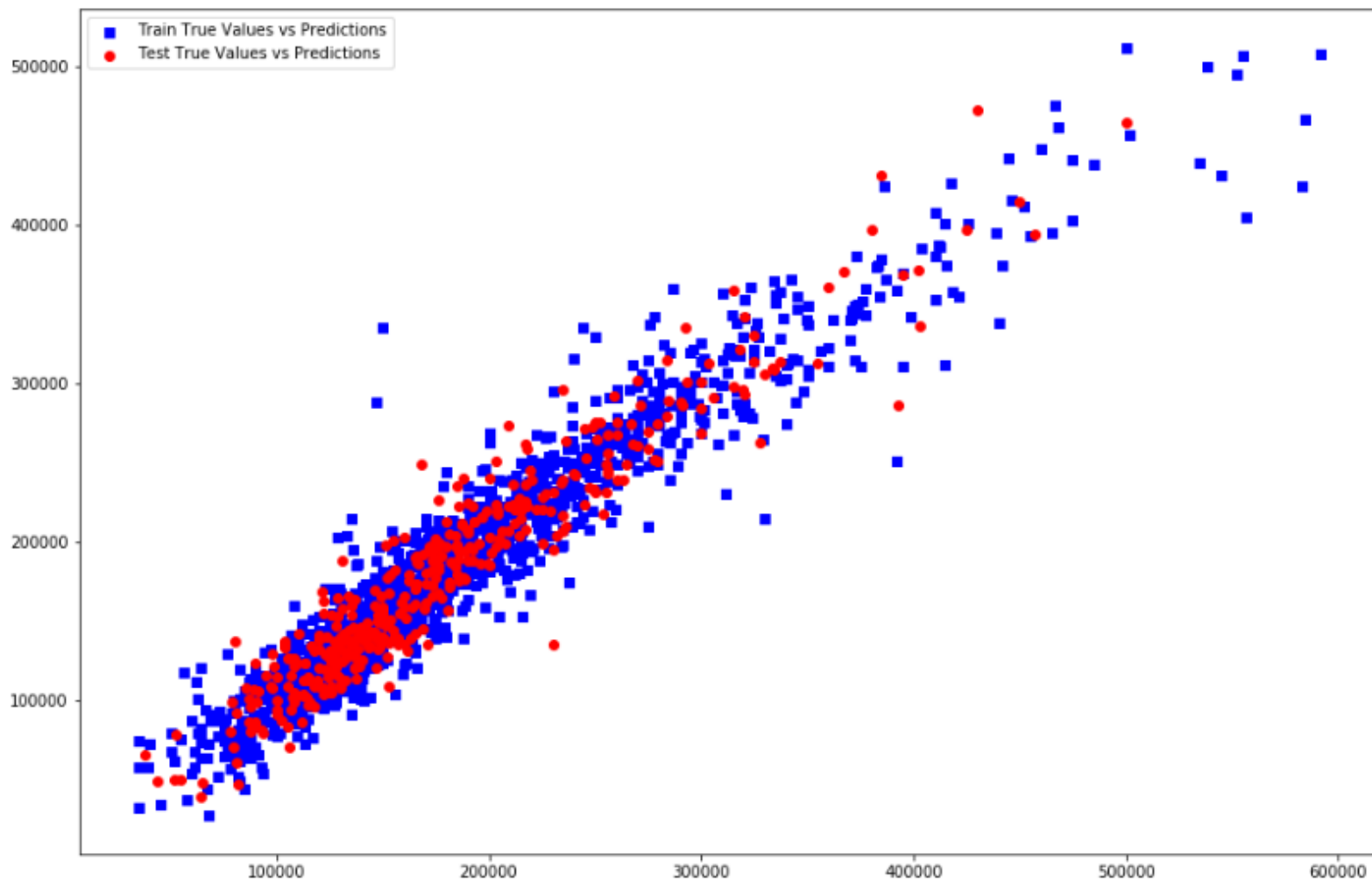
- To develop a model that could accurately calculate the 'Zestimate' of any given house in Ames, Iowa given housing data from 2006 to 2010.



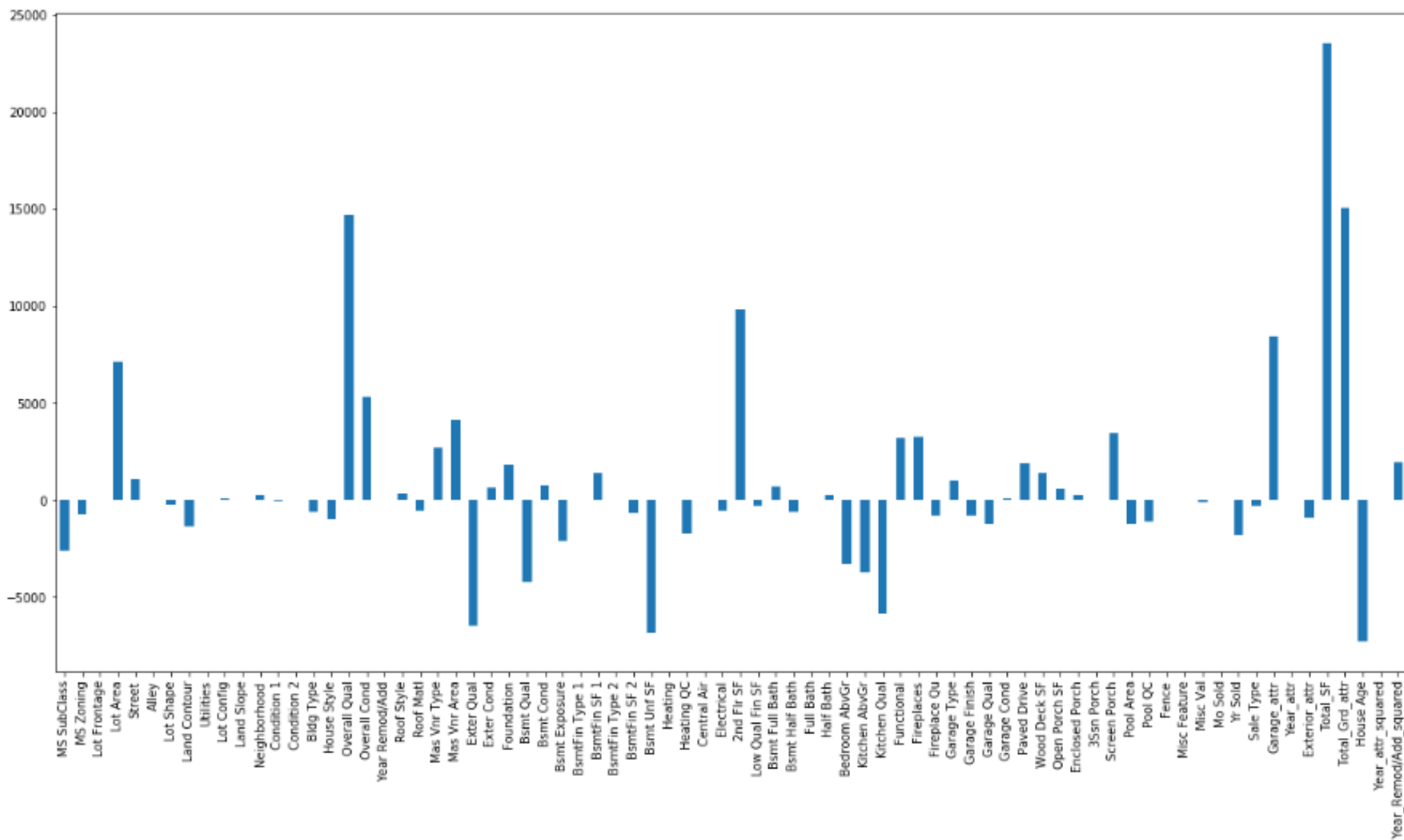
- Analyze 79 house features to isolate value adding, value depreciating and value neutral features to help current clients, attract future clients and gain a competitive edge over other real estate platforms.

# MODEL ACCURACY

Score : 91.30%

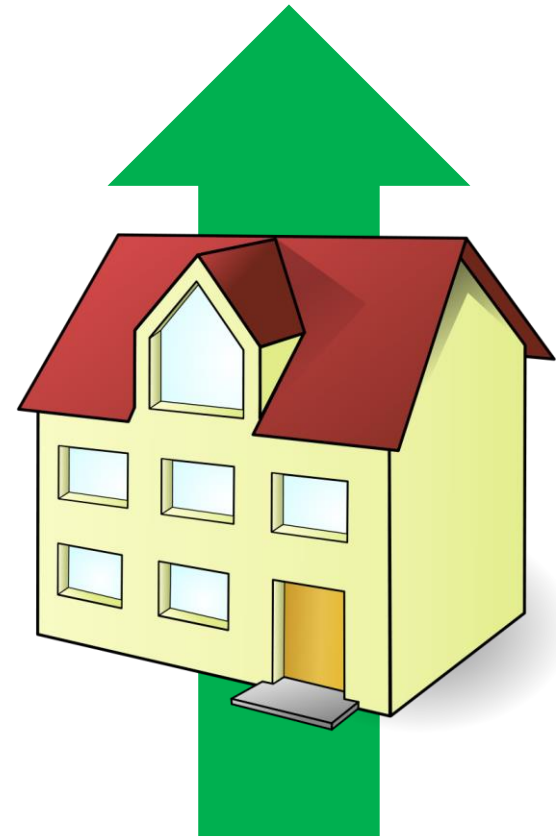


# FEATURES AFFECTING HOUSE PRICES



# INCREASING HOUSE VALUE FEATURES

- Total Square footage
- Total number of rooms at Ground Level
- Overall Quality
- Garage characteristics
- Lot Area
- Overall Condition
- Area of masonry veneer
- Square footage of finished basement
- Home Functionality



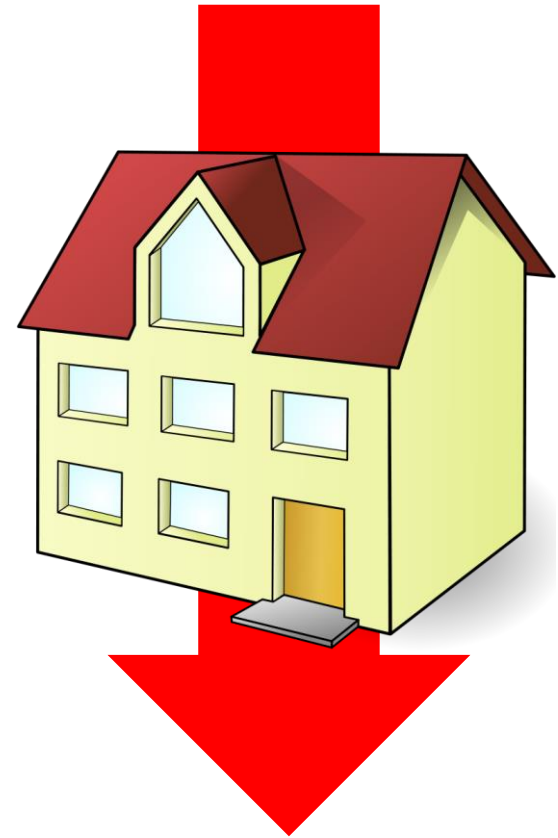


# **NEUTRAL HOUSE VALUE FEATURES**

- Porch Area
- Fence quality
- Slope of the property
- Type of Utilities available
- Ratings of basement finished area
- Type of Alley Access to property
- The presence of central air conditioning
- Month during with the sale occurred
- Type of heating

# DECREASING HOUSE VALUE FEATURES

- House Age
- Square footage of unfinished basement
- Pool Area
- Land Contour-Flat
- Building Type-Two-family Conversion; originally built as one-family dwelling



# **RECOMMENDATIONS TO INCREASE HOUSE VALUE**

- Finish the basement
- Add stone veneer to the front of the house
- Touch up your exterior paint
- Upgrade fixtures in the kitchen and bathrooms
- Remodel older sections of the house
- Fill up the pool

# CONCLUSIONS

- This model would not general well with other cities as it was developed on data only from one city, Ames and over a relatively short period of time of four years. In addition, it also included sales from 2008 - 2009 when the Housing Crash took place and given that it a unique economic phase, it wouldn't represent trends over the rest of the years accurately. In order to reduce the significance of this phase, a larger amount of data over a longer period of time (2011 to 2020) should be considered so the sale prices average out better.
- It is a challenging endeavor to develop a model that will generalize for more cities as a lot of other external factors influence housing prices as well like average income of the city, average age of the population of the city, availability of educational institutes like universities and colleges etc. However, the model definitely shows insight on key features that increase value of the house and those that are not significant.
- Zillow will continue to collect data and build robust models to predict house prices accurately taking their clients one step closer to wards their goals where its selling their home or purchasing their dream home.

# SOURCES

- [www.zillow.com](http://www.zillow.com)

**QUESTIONS??**