

## **Valuing Homes in Ames, IA**

### **The Problem**

So you want to move to Ames, IA and you want a great deal on your next home purchase. What factors should be taken into consideration to make sure you are getting the best deal? As a home purchaser, you want to know why the home you are interested in is a couple more dollars per square foot than the one across the street. I plan on finding a pricing algorithm that produces the desired answer.

I will use the Ames, IA recently sold homes data set. Some of the info in the data set includes the price of a home sold, size of the kitchen, number of rooms, number of bedrooms, size of the yard, size of the garage as well as an additional 75 features.

### **The Client**

My client is someone in the Ames, IA area that is shopping for a home in the area. My project will not serve the home shopper looking for outlying homes. I have the data on only 5 homes over 4,000 square foot homes. 5 examples are not enough data to produce an answer.

I will provide the home shoppers with a list of tools that will be able to properly represent the price a home should sell for vs what the listing price is. The benefit of this project is the home shopper will be able to tell if they are getting a good deal or if they would be underwater at the time of purchase.

### **What Data is Being Used**

Ames, IA provided a data set of every home sold from 2006 to 2010 in Ames Iowa. Overall there are 2930 homes in the data set. The data set is very complete with a few missing values.

### **Navigating the Data**

I will solve the problem by creating some linear regression lines based upon the features in the data set. I will use a train and test machine learning algorithm and the Seaborn package.

### **Desired Deliverables**

I will produce a paper as well as a slide deck reporting the findings that I have found. I will explain the process that was going through to find the answers.