

Report

Project 1: House Price Prediction

Abstract

To forecast home sales prices, I developed a machine learning model to predict home sales prices. My linear regression model received an R^2 of 0.5954. In the test set, the r^2 score had a mean squared error of 0.4046 and a mean squared error of 0.4179. I specified the house's square footage (sqft living). The data set house data train.csv refers to the actual price of the house. The number of bedrooms in a house is frequently one of the determining factors in its price. Houses with more bedrooms tend to be more expensive than those with fewer bedrooms.

Linear Regression model

I chose to use a linear regression model to predict house prices because it had the highest r^2 score and the lowest mean square and mean absolute errors. My linear regression model has an r^2 score of 0.5954, a mean square error of 0.4046, and a mean absolute error of 0.4179.

Performance testing

Sample testing of my price prediction with using sqft_living and price of the house

Y[index in array]	Predict Price	Actual Price	Difference of actual price and predict price
0	524593.7587	350000	174593.7587
1	448681.44499	475000	-26318.5550
2	375131.7835	422000	-46868.2165

Average error between prediction price and actual price is: 33802.3291

<https://colab.research.google.com/drive/1BpPPjEbF57qDJ2W40i3DXSzwHjVxcsO6?usp=sharing>