

House Price Prediction

Motivation



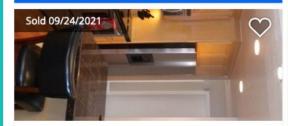
\$3.40M

3 bds 2 ba 1,690 sqft - Sold 736 Coastland Dr, Palo Alto, CA 94303



\$4.41M

5 bds 3 ba 2,127 sqft - Sold 1795 Hamilton Ave, Palo Alto, CA 94303



\$1.77M

3 bds 3 ba 1,380 sqft - Sold 670 San Antonio Rd APT 40, Palo Alto, CA 4306



\$7.30M

5 bds 5 ba 3,63 8 sqft - Sol 3 843 Sutter Ave, Pa o Alto, CA 94 303



2020

Median House Sales Prices
Bay Area



Primary Data Source



Bay Area House Data



- Alameda County
- Santa Clara County



Median Household Income in California

3900+ entries of Data 35 features

City LotType
Zipcode ParcelNum
SoldPrice Zoning

Sold Date SpecialCondition

HomeType Materials
Bedrooms Roof
Bathrooms YearBuilt
FullBath SewerInfo
HalfBath WaterInfo

Flooring UtilitiesType Heating Region

Cooling RoomKitchenFeatures

Laundry ListPriceLow

HomeSize min_school_dist

ParkingLotNum avg school dist

ParkingType FoundationDetails

ExtType ParkingFeatures

LotSize

Modeling Framework



Predict the House value based on the pre-house sale prices

Key Features

- Home Type
- Bedroom
- Bathrooms
- Home Size
- Parking Lot Num
- House Age
- House Hold Avg Income
- City



Modeling Framework

REMOVE EXTREME VALUES



Sold Price

> > 5K > < 6M



BEDROOM NUM

> =0



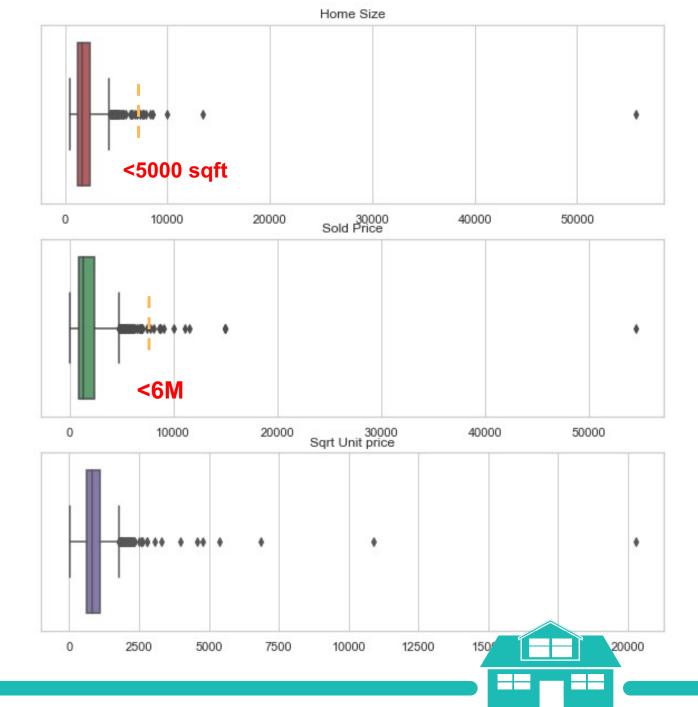
YEAR BUILT

> =0



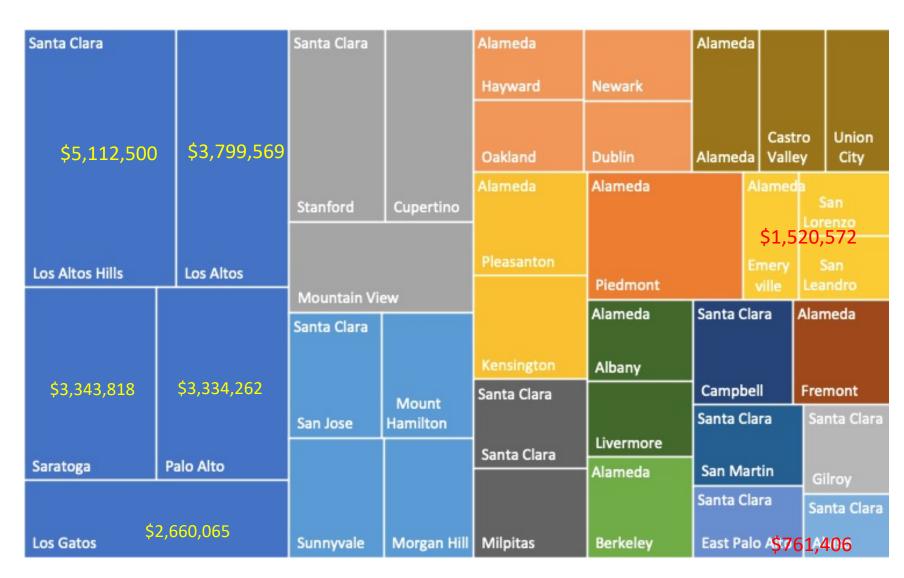
Home Size

> <5000

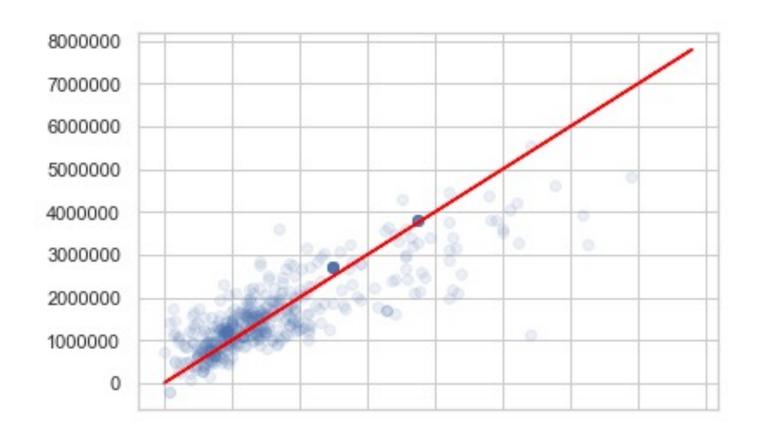


Key Feature

Average Sale Price by City



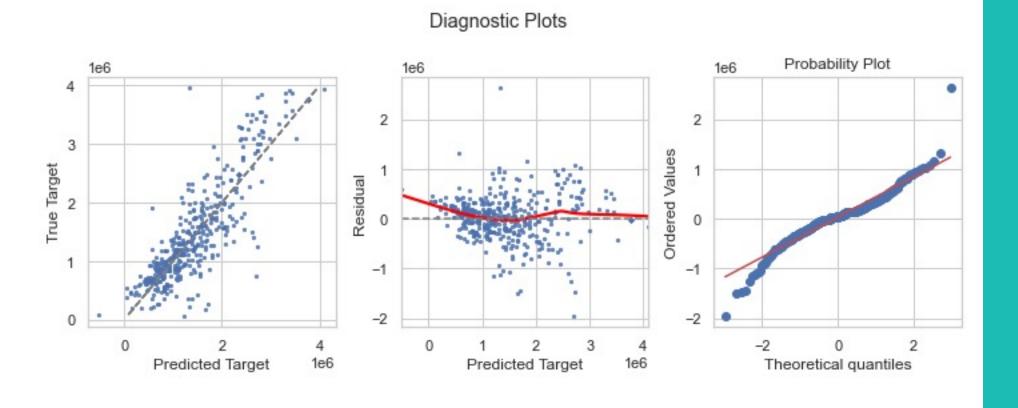
Result



R²: 0.81

MAE: 1000+

Result cnt.



Future Work

Improve the model performance

Access Alternative Features

Separate the Analysis by County

Price Mean

- Alameda County: 1.15M - Santa Clara County: 2.15M

