

# Comparing Lasso Regression and Gradient Boosting Regressor on Stock Price estimation

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## Abstract

Real Estate is still one of the biggest investments for people, so it's important. Predicting housing prices can seem easy at first, but it is dependent on way more things than is obvious and the relations are not always easy to see. The Kaggle competition House Prices: Advanced Regression Techniques provides a good starting point for applying linear regression models to the real estate market. In this paper we show extensively how to deal with the data and compare lasso regression with the gradient boosting regressor.

## 1 Introduction

- Say a lot about housing prices, the features etc. - Why is it relevant? - What is regression? What kinds of approaches are there? - What approaches did we choose and why?

- Tell a lot about lasso regression, how it works, upsides, downsides - Tell a lot about gradient boosting regressor, how it works, upsides, downsides

- How did we do it? - What is our data? How much do we have? - Test set split - Validation Methods - How did we test the methods? - What result did we arrive at (Should that already be here?)

## 2 Methods

### 2.1 Technologies Used

Notebook server for Collaboration Python with the sklearn package (right?) and pandas

## **2.2 Dataset**

## **2.3 Sample Treatment**

## **2.4 Data Preprocessing**

## **2.5 Outlier**

# **3 Result and Discussion**

## **3.1 Data Preprocessing**

A whole lotta charts, discussing step by step what we did and why

## **3.2 Lasso Regression**

A whole lotta charts, discussing step by step what we did and why

## **3.3 Gradient Boosting Regressor**

A whole lotta charts, discussing step by step what we did and why

## **3.4 Comparison**

## **3.5 Further Research**

## **3.6 Conclusion**

# **4 References**