

AI Challenge – Boston Housing

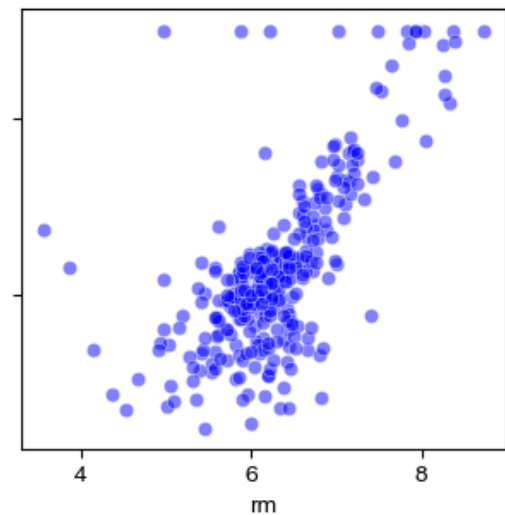
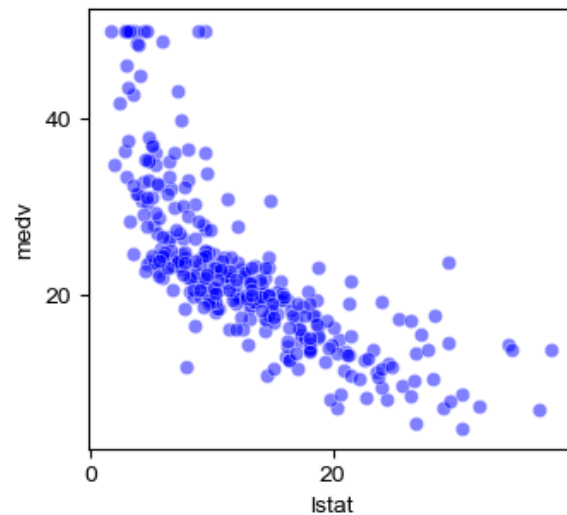
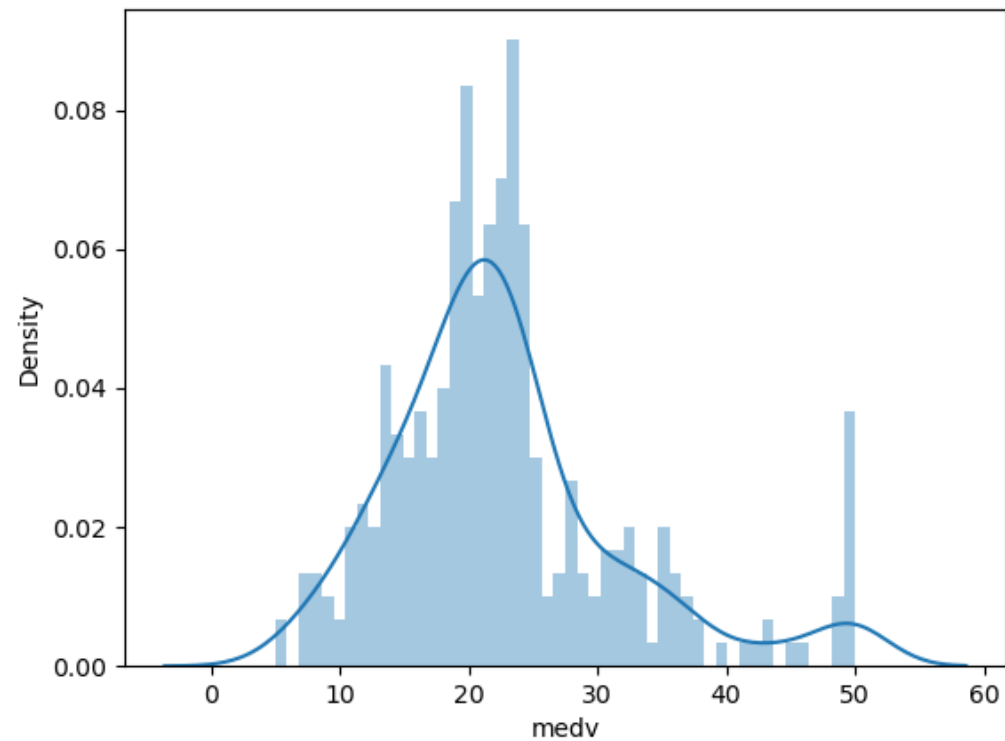
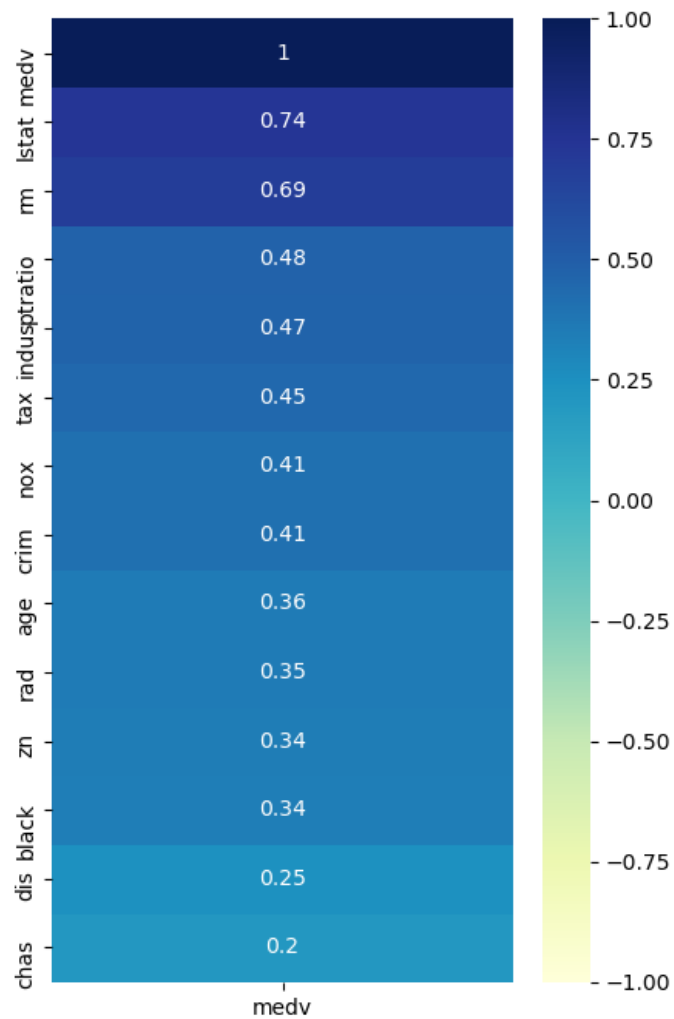
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The Problem

- **Estimate house prices in the Boston area, using machine learning methods.**

The Data



The Methods

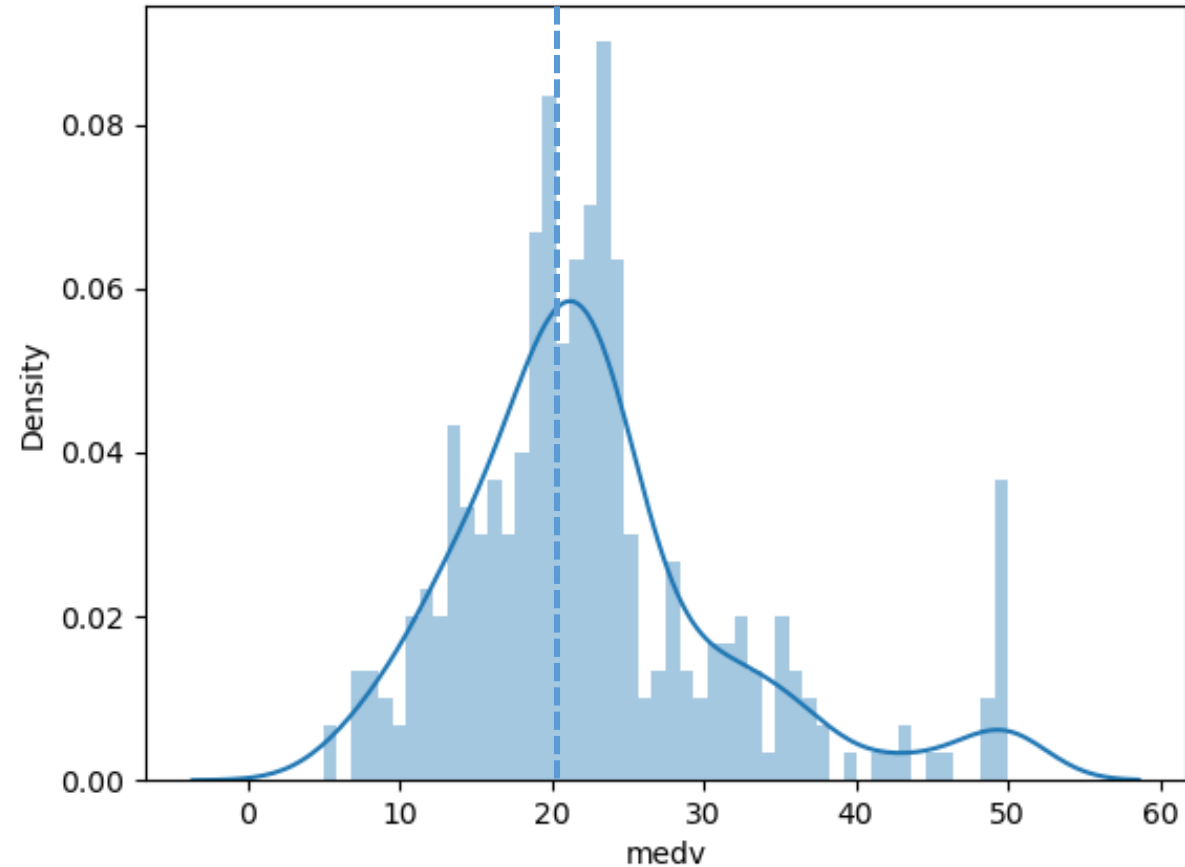
- **Linear Regression**
- **Lasso Regression**
- **Decision Trees**
- **Deep Neural Networks**

The Results

	RMSE:	Mean	Median	25-percentile	75-percentile
best to worst ↓	Decision Trees	5.00	5.03	4.37	5.51
	Linear Regression	5.26	5.26	4.93	5.55
	Lasso Regression	5.64	5.64	5.34	5.96
	Deep Neural Networks	12.42	9.99	8.91	12.47

The Results - example

<u>Observation Value</u>	<u>20.10</u>
Decision Trees	19.30
Linear Regression	20.08
Lasso Regression	19.70
Deep Neural Networks	20.59



The Conclusions

- We would recomend using Linear Regression or Decision Trees in this context.
- We would not recomend using Deep Neural Networks due to it's black blox nature.