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#### **PROJECT**

# **Predicting Boston Housing Prices**

A part of the Machine Learning Engineer Nanodegree Program

PROJECT REVIEW
CODE REVIEW
NOTES

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Congratulations!! ( )

Your answers are simple and to the point. I enjoyed reading the answers. Good Work!!

All the best for next projects!! Keep Learning and Keep Improving.!!

# **Data Exploration**

All requested statistics for the Boston Housing dataset are accurately calculated. Student correctly leverages NumPy functionality to obtain these results.

All values correctly calculated using numpy!

Student correctly justifies how each feature correlates with an increase or decrease in the target variable.

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Nice explanation!

For PTRATIO, yes your doubts are valid, but think in general, its more about locality, not for entire district, so chances are there might be not many schools in same locality to average out. Mostly with more students in a class, would teacher be able to concentrate more on each individuals development? Would parent prefer that? Its just logic, there is no correct or wrong.:)

### **Developing a Model**

Student correctly identifies whether the hypothetical model successfully captures the variation of the target variable based on the model's R^2 score.

The performance metric is correctly implemented in code.

Good explanation!

Fun Fact: Sometime even with very high R^2 score the model could be pretty bad in understanding the variances. Read about it more here

Student provides a valid reason for why a dataset is split into training and testing subsets for a model. Training and testing split is correctly implemented in code.

Agreed with your reasoning, yes its important to have some untrained data to evaluate the performance of the model.

# **Analyzing Model Performance**

Student correctly identifies the trend of both the training and testing curves from the graph as more training points are added. Discussion is made as to whether additional training points would benefit the model.

Good observation here!

Student correctly identifies whether the model at a max depth of 1 and a max depth of 10 suffer from either high bias or high variance, with justification using the complexity curves graph.

Nice Explanations!

Student picks a best-guess optimal model with reasonable justification using the model complexity graph.

Good Guess! and nice justification

## **Evaluating Model Performance**

Student correctly describes the grid search technique and how it can be applied to a learning algorithm.



Student correctly describes the k-fold cross-validation technique and discusses the benefits of its application when used with grid search when optimizing a model.

Good Explanation!

Student correctly implements the fit\_model function in code.

Correct implementation! You could use | np.arange | method also to generate the range of numbers.:)

Student reports the optimal model and compares this model to the one they chose earlier.

You can trust your intuitions more now:)

Student reports the predicted selling price for the three clients listed in the provided table. Discussion is made for each of the three predictions as to whether these prices are reasonable given the data and the earlier calculated descriptive statistics.

Good Justification!

Student thoroughly discusses whether the model should or should not be used in a real-world setting.

Good discussion here!

Did you noticed from data definition that the price of house is already scaled for 35 years of inflations? But do you think its enough?

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Student FAQ