

Predicting and Analyzing College Student Lifestyle and Spending Patterns in Major Cities of Saudi Arabia

2023-11-05

Introduction

o What is the aim of the project? – Summarize the problem – State your goals o What do you do in this report? – offer a roadmap of the project

Problem Statement and Background

o Give a clear and complete statement of the problem and/or aim of your analysis. o Include a brief summary of any related work that has tried to tackle a project similar to yours (i.e. a light literature review)

Data

o What is the unit of observation? o What is the outcome variable? – How is it measured? – Where does it come from? – Please describe how the outcome variable is distributed using a table and/or graph. o What are your predictor variables? – How are they measured? – Where do they come from? – Please describe how the predictor variable are distributed using a table and/or graph. o Outline any potential issues with the data: – Missingness – Lack of variation and/or availability – Any potential sources of bias o How do you overcome/mitigate these issues in your analysis?

Methodology

Analysis

o Describe the methods/tools you explored in your project. o Outline in detail our entire analysis. – Justify the tools/methods that you used. – Assume the reader is smart but doesn't know R/Machine Learning well. That is, be crystal clear about what you're doing and why. o Note that this section should walk us through what you're doing and how you're planning on doing it. There should be no results presented in this section

Results

o Give a detailed summary of your results. Present your results clearly and concisely. o Please use visualizations and tables whenever possible. o Be sure to: – Discuss the performance of your predictive model. – Use interpretable machine learning to talk about which variables were important in the prediction task and how they relate to the outcome (i.e. PDP/ICE/Surrogate Models)

Discussion

o What conclusions should we pull from your analysis? o What are the limitations (i.e. what can't we say given your findings)? o How would you expand the analysis if given more time? o Speak on the “success” of your project (as defined in your proposal). – Did you achieve what you set out to do? If not why?

References

Appendix

```
summary(cars)
```

```
##      speed      dist
##  Min.   : 4.0    Min.   :  2.00
##  1st Qu.:12.0    1st Qu.: 26.00
##  Median :15.0    Median : 36.00
##  Mean   :15.4    Mean   : 42.98
##  3rd Qu.:19.0    3rd Qu.: 56.00
##  Max.   :25.0    Max.   :120.00
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.