

General Assembly

Final Project Guidelines

DS-SF-42

Objective

- ❖ Conduct a project in which you apply machine learning to a dataset of your choosing.
- ❖ Your goal is to solve a problem and / or advance the understand of an issue. What are you trying to do predict? Why is that important? What relationships and other phenomenon are you trying to better understand
- ❖ Apply the tools and concepts you've learned in this course.
- ❖ Can either be classification or regression. Or can do an unsupervised learning project in which you use clustering.

Presentation Expectations

- ❖ You will be allotted up to and no more than 8 minutes for your final project presentation.
- ❖ Conduct your presentation as you would if you're doing this at work.
- ❖ Assume your audience is data science knowledgeable, so you can be technical but don't be *too* technical.

Outline

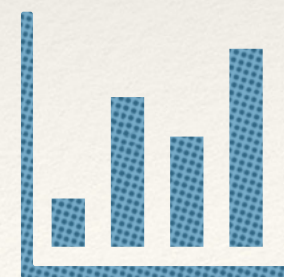
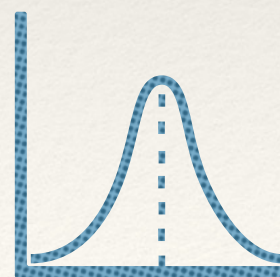
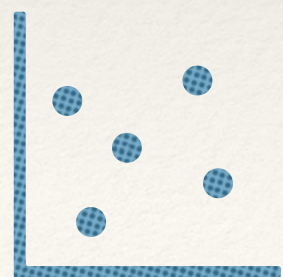
- ❖ I. Introduction
- ❖ II. Exploratory Data Analysis
- ❖ III. Modeling Process
- ❖ IV. Modelings Results
- ❖ V. Conclusions / Further Work

I. Introduction

- ❖ What is the problem / issue you addressed?
- ❖ State your objective
- ❖ Tell us about the dataset. Where did it come from? How did you acquire it?
- ❖ Provide context about this dataset. What is the value?
- ❖ Why did you choose this project / data?

II. Exploratory Data Analysis (EDA)

- ❖ CHARTS CHARTS CHARTS!!
- ❖ Use this section to further acquaint the audience with your data.
- ❖ Tell us what you learned from your EDA process.
- ❖ How did this part of the project help inform you which features are important?



III. Modeling Process

- ❖ Walk us through the modeling process. Which models did you choose?
- ❖ Tell us what you did to improve your models. Did you drop or add features? Transform your data in any other way.
- ❖ What are the best features from your dataset?

IV. Modeling Results

- ❖ What is the best model you derived? Which algorithm did you use? And with which parameters?
- ❖ What was the final set of features you used?
- ❖ Which metric did you use to evaluate your model? (accuracy, recall, precision, roc_auc, etc...)
- ❖ How well did your model perform? Whatever metric you use, make sure it is cross-validated. Use charts to show your results, definitely include a ROC curve if you're doing classification.

V. Conclusion and Further Work

- ❖ Tell us what you learned about the issue you're project is about.
- ❖ Did you experience a grande revelation about your data? If so tell us.
- ❖ Was your hypothesis correct? Tell us why or why not
- ❖ Is there any unfinished business? If you had more time or data, what would you do?

Guidelines

- ❖ You're going to have a lot more information than can be fit into a 8 minute project. Think critically about the content you want to include and *not* include as well.
- ❖ No code! It doesn't happen in the real world, so please don't put it in your presentation. And no screenshots of pandas tables.
- ❖ We're 16 days away from final presentation day, so please budget your time wisely.
- ❖ Use Stewart and I as much as possible for help. Come to office hours.

MOST IMPORTANTLY
HAVE FUN!!!

???QUESTIONS???