

<u>Course</u> > <u>Capstone Project: I...</u> > <u>Project Overview: C...</u> > Project Overview: C...

## Project Overview: Choose Your Own!

For this project, you will be applying machine learning techniques that go beyond standard linear regression. You will have the opportunity to use a publicly available dataset to solve the problem of your choice. You are **strongly** discouraged from using well-known datasets, particularly ones that have been used as examples in previous courses or are similar to them (such as the iris, titanic, mnist, or movielens datasets, among others) - this is your opportunity to branch out and explore some new data! The <u>UCI Machine Learning Repository</u> and <u>Kaggle</u> are good places to seek out a dataset. Kaggle also maintains a curated list of datasets that are cleaned and ready for machine learning analyses. Your dataset must be automatically downloaded in your code or included with your submission.

The ability to clearly communicate the process and insights gained from an analysis is an important skill for data scientists. You will submit a report that documents your analysis and presents your findings, with supporting statistics and figures. The report must be written in English and uploaded as both a PDF document and an Rmd file. Although the exact format is up to you, the report should include the following at a minimum:

- an introduction/overview/executive summary section that describes the dataset and summarizes the goal of the project and key steps that were performed;
- a methods/analysis section that explains the process and techniques used, such as data cleaning, data exploration and visualization, any insights gained, and your modeling approach;
- a results section that presents the modeling results and discusses the model performance; and

• a conclusion section that gives a brief summary of the report, its limitations, and future work (the last two are recommended but not necessary).

Your project submission will be graded both by your peers and by a staff member. The peer grading will give you an opportunity to check out the projects done by other learners.

© All Rights Reserved