

Final Project Rubric

PPOL564 – Data Science 1 - Foundations

Fall 2021

Student: _____

Project Name: _____

Total Score: _____ / 50

Project Materials

2 points

- Report was posted to Canvas as a `.zip` containing the following items:
 - Report was rendered using a scripting language (RMarkdown, Latex, etc.) as any one of the following file types: `.pdf/.docx`. File was titled `lastname_firstname_final_report.pdf` (or whatever file the relevant file prefix). (___/1 point)
 - Student included the data used in a `Data/` folder. (___/1 point)

Project Code

2 points

- Student posted link (url) to their Github repository (corresponding to their project work progress) as a comment on Canvas with their project submission. (___/1 point)
- Student used their Github repository for every deliverable (i.e. their first commit is on or before the first project deadline, and all work product was committed along the way). (___/1 point)

Document Presentation

16 points

- **Student used professional looking visualizations in the report:**
 - Figures were easy to understand? (___/1 point)
 - Figures made sense within the context of the report? (___/1 point)

- Student described the purpose and the insight drawn from the figure in the text? (___/1 point)
 - Figures referenced in the text are labeled, i.e. references to “figure 1” correspond to the figure title (e.g. “Figure 1: Title”)? (___/1 point)
 - Figures include titles? (___/1 point)
 - Figures labels/axes/text are readable? (___/1 point)
 - Color scheme made sense; easy to differentiate between colored items (___/1 point)
 - Figures were appropriately proportioned to the document? (___/1 point)
- **Student generated a professional looking report:**
 - Report was rendered without errors or warnings. (___/1 point)
 - No code was visible in the report. (___/1 point)
 - No raw output was visible in the report. (___/1 point)
 - Report includes a title, author byline, and word count. (___/1 point)
 - Report is 12 pages in length (double-spaced; 12 pt font) or 3000 words.¹ (___/1 point)
 - Report contained no (or few) grammatical/spelling errors. (___/1 point)
 - Report reads as a single cohesive document. (___/1 point)
 - Student cited academic, data, and package sources. (___/1 point)

Content

Points 30

The student’s project sufficiently addressed these general areas.

- **Introduction** (___/5 point)
 - Student clearly established the aim of the project.
 - Student offered a clear roadmap of the report (i.e what is covered in the report).
- **Problem Statement and Background** (___/5 point)
 - Student offered a clear and complete statement of the problem and/or aim of their analysis.
 - Student included a brief summary of any related work (i.e. a *light* literature review)
- **Data** (___/5 point)
 - Student outlined where their data came from.
 - Student clearly specified:
 - * the unit of observation;
 - * the outcome of interest and how it is measured;
 - * predictor variables of interest (and why they were selected);
 - * potential issues in the data (e.g. missingness, coverage, etc.)
 - Student articulate the steps they took to wrangle the data.

¹Note that your citations do not count against your word/page count.

- **Analysis** (___/5 point)
 - Student described the methods/tools they explored in their project.
 - * Justified the tools/methods that they used.
 - * Adequately described what the tools/methods are doing.
 - * Note: Assume the reader is smart but doesn't know programming/machine learning well. That is, be crystal clear about what you're doing and why.

- **Results** (___/5 point)
 - Student gave a detailed summary of their results.
 - Student presented their results clearly and concisely.
 - Student used visualizations (and tables) whenever possible/appropriate.
 - Student highlighted some clear takeaways (“things learned”) and theoretical implications (“potential hypotheses”) from their analysis.

- **Discussion** (___/5 point)
 - Student spoke on the “success” of their project (as defined in their proposal).
 - * “Did you achieve what you set out to do? If not why?”
 - Student articulate how they would expand the analysis if given more time.