

# Final Project Grading Rubric

INFSCI-2160 Data Mining  
Yu-Ru Lin, University of Pittsburgh

The overall grade for final project is 40% of the total grade. The final project includes several milestones as described in the course webpage “Final project guideline”<sup>1</sup>. The project grading is based on the following rubric<sup>2</sup>.

Table 1: **Grading rubric**

|                   | A   | B   | C   | D   | E   | Total |
|-------------------|-----|-----|-----|-----|-----|-------|
| Peer review       | 10% | 10% | 10% |     |     | 30%   |
| Instructor review | 15% | 15% | 15% | 10% | 15% | 70%   |

## (A) Technical strength and evaluation

*Technical strength:* The pedagogical goal of this project is for you to practice how to design, implement and evaluate data mining techniques and how to apply them in practical scenarios. In order to show the technical strength in your project, you need to provide sufficient details in your oral presentation and written report. Specifically, what do you try to accomplish? What method (data mining techniques) did you adopt? What are the strengths of your method? Describe the systematic approach how you achieve your specific goal, and justify your method with supporting argument through evaluation.

*Experimental evaluation:* Describe your experimental results with systematic evaluation in your oral presentation and written report. Specifically, describe the evaluation criteria, including performance measures and baseline methods. Explicitly state the performance of your method, and provide whatever results and insight you have gained from the evaluation.

## (B) Innovation and overall challenging level

*Innovation:* Use your project to do something creative and useful. You could demonstrate your innovation by (i) applying existing data mining techniques to solve a new problem, and/or (ii) incorporating new ideas to improve existing data mining techniques for solving an existing problem. If your project simply duplicates existing work, you will gain fewer points in this aspect. To get points you deserve, explicitly present any innovative ideas included your project, in your oral presentation and written report.

*Overall challenging level:* Your project is expected to be reasonably challenging. A reasonable challenging project involves (i) non-trivial implementation effort, and/or (ii) innovative

<sup>1</sup><https://sites.google.com/site/datathinkingpractice/assignments/final-project-guideline>

<sup>2</sup>Part of the description about grading criteria (A)(B) is revised from Dr. Qing Yi’s “Grading Criteria For Student Projects.”

components. You need to explicitly state why you think your project is reasonably challenging in your oral presentation and written report. For a group with two or more members, the expected challenging level should be higher.

- (C) **Presentation** You need to clearly present all the required components as described above in both your oral presentation and written report. Present your project to the entire class and you will receive peer review from the class. In your written report, provide sufficient details within proper page length. Use the given template and follow the writing guideline as described in the course webpage “Final project guideline.” In the written report, cite and provide reference for any source of information you have used in your project, including publications, online information, code or software packages.

*Honor code:* You may consult any papers, books, online references, or publicly available implementations for ideas and code that you may want to incorporate into your project, as long as you clearly cite the sources in your code and your written report.

- (D) **Implementation** You need to submit R code for your project that is working and is able to produce the same experimental results as described in your final report. Hence, the experimental procedure and the testing data must be submitted together with necessary documentation describing how to run the experimentation.
- (E) **Overall project management** You need to submit required materials to meet each milestone as described in the course webpage “Final project guideline.” These milestones are to help you seek resources you may need, make sure you develop a concrete direction, and better manage your project. Before each milestone, if you find it difficult to meet the requirement, you should make an appointment and discuss with me in advance.

**Group member evaluation** To facilitate real collaboration within larger group, for a group with two or more members, I will ask each member to submit independent evaluation of member contribution for your group member(s), and adjust individual scores based on the member evaluation.