

STAT 408

Applied Regression Analysis

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Fall 2022

Final Project Guidance

Group Assignment

- <https://docs.google.com/spreadsheets/d/1hINhP6dx1izVTSdwKJc0g5TGuwsYrSMIdaVnQyx3xuU/edit#gid=0>
- Please sign your name by 10/30

Topics

- Each group will formulate a research topic
- The project should clearly define the research question
- The project should be based on a real dataset
- The group members need to use the methods in this course to analyze the data and answer the research question
- Methods outside the class can also be used if necessary

Presentation

- The presentation is 10 points in total and takes 15% of the final grade
- Scheduled on 12/6 Tuesday and 12/8 Thursday in class (last week)
- Each group need to make presentation slides and have 15 minutes to present, followed by any questions from the classmates or professor
- Every group member need to present one part of the project
- All students should attend the two presentations to support your classmates
- Follow-up questions are highly encouraged

Presentation

- The presentation should have the following sections

1. Title (+ group member)

2. Introduction

The domain background, research question, significance of your topic

3. Dataset

How the data was generated, variable description, data size

4. Method

What methods are used; how do you apply the method to your data

5. Result

The analytic result from your method and data, visualization, table, conclusion

Presentation Grading

- The grade for presentation is based on:
 1. If all required sections are included in the presentation
 2. If the presentation slides are clearly written
 3. If the presenter successfully present the project
 4. If the appropriate methods are selected
 5. If the group really answer their research questions
- Some side notes
 - All members in one group will receive the same grade
 - You can have “negative” result for your analysis
 - Send me the presentation slides by the night before your presentation

Final Report

- The final report is 10 points in total and takes 15% of the final grade
- Due by midnight, 12/18, Sunday (tentative)
- The final report is a “mini paper” to summarize your research project
- It should include
 - Title, Introduction, Dataset, Method, Result, Reference
- Format (in Office Word)
 - Times New Roman, font size 12, line space 1.15, normal margin, 4-6 pages (can be longer)

Final Report Grading

- The grade for final report is based on:
 1. If all required sections are included in the report
 2. Use formal writing to clearly describe the project, avoid oral expression
 3. Don't copy presentation slides
 4. Don't forget the reference
- Some side notes
 - All group members will receive the same grade
 - Submit all the code you used for the project

Suggestion on Topics

- Ideally, choose the research topics based on your personal interest
- Some dataset resources
 - Your study field or interest
 - From research paper
 - UCI machine learning repository
 - <https://archive.ics.uci.edu/ml/index.php>
 - Datasets for "The Elements of Statistical Learning"
 - <https://hastie.su.domains/ElemStatLearn/>