Introduction to Statistical Learning

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Math 243: Stat Learning

August 30th, 2021

Outline

In today's class, we will. . .

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- Review course logistics

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In today's class, we will. . .

- Review course logistics
- Guess how old the math faculty are

Section 1

Logistics

Introduction to Statistical Learning

Course Information

- The course website: https://reed-stat-learning-fall-2021.github.io/
  - Check every day!
  - Schedule, list of assignments, resources

- Slack: https://reedmath243fall2021.slack.com
  - Check every day (or more frequently)!
  - Announcements, discussion, direct messages

- GitHub Classroom: https://classroom.github.com/classrooms/88862064-reed-stat-learning-fall-2021-classroom
  - Check weekly (or more frequently)
  - Place to obtain and then submit homework

For Next Time

- Sign up for our class Slack workspace (if you haven't already)
- Review the course website (Wednesday's schedule will be update later today)
- Sign up for a GitHub account (https://github.com/).
- Bring laptop to class on wednesday 9/2.

Section 2

How old are we?

The Rules

- Photos for 9 math and stats faculty at Reed can be found on the schedule page of the course website, obtained from https://www.reed.edu/faculty-profiles/

- **Goal**: Estimate the age of each faculty member (at the time the picture was taken)

- Work in groups to develop a consistent method for estimating age. Think about:
    - What explicit features are you analyzing?
    - How do you convert these features to numeric estimates?
    - How do you resolve differences in opinion among group members?

- Record your estimates for each faculty member on a piece of paper and submit by the end of class

- **Note: not all pictures were taken in the current year**

Photo 1

Photo 2

Photo 3
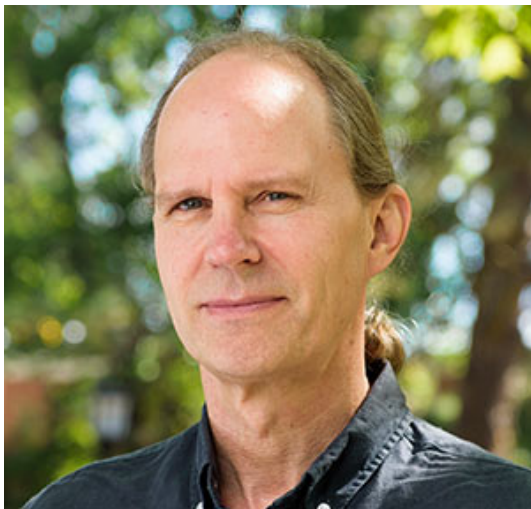
Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Debrief

- How should we quantify error?

- What are some sources for error in our estimates?

- How should we assess the overall accuracy of a group's predictions?

- Did any groups seem to consistently over- or under-estimate ages? By how much?

- Do any faculty member ages seem to consistently be over- or under-estimated?

- Are there any faculty members where the guesses seem to be in a particularly large or small range?

- We used this as a fun activity. But what are some potential problems and limitations of this type of investigation?