# CSC/SDS 109: Communicating with Data

*Fall 2024*

## HW 03: Playing with Perception

*This is an individual or pair assignment-- you pick!*

***Goals:***

- Explore how perception can be leveraged to change a visualization

## Instructions

### Part 1: Variations

1. Find a dataset of interest to you. You are free to use any dataset you want. You are encouraged (but not required) to branch out beyond the sample datasets posted to the course website.
2. Create a visualization that faithfully communicates an interesting pattern in your dataset.
3. Modify your visualization's use of color, saturation, or other visual variables to intentionally mislead the viewer - that is, distract from the "point" you made in your first visualization (without changing the data or the structure of the visualization itself). Note: you may choose to be overt about your deception if you like, though you may find it a more exciting challenge to be subtle about it...

### Part 2: Find a Friend

For the second part of this assignment, find a friend (preferably someone not in this course) and show them your ***misleading*** visualization. Tell them a little bit about the dataset you chose and ask them to tell you what conclusions they draw from the visualization you made. Take notes on what you observe:

- What parts of the visualization are they looking at?

- What do they notice?
- What meaning do they make of what they see?
- Was your deception effective?

### Part 3: Deliverables

- A link to your dataset
- Both of your visualizations (the first one, and the deceptive one)
- A document that contains:
    - Explanation of the interesting pattern your first visualization shows
    - Justification for both visualization designs
    - Your observations from Part 2

## *Submission*

Submit your deliverable(s) as a PDF on Gradescope. If you worked with a partner, submit as a group (https://guides.gradescope.com/hc/en-us/articles/21863861823373-Adding-Group-Members-to-a-Submission).

## *Rubric*

*The following matches the rubric you will see on Gradescope.*

| | Points | Criteria |
|---|---|---|
| | 1 | Submission is well-formatted and easy to read. |
| | 1 | Submission includes a link to the original dataset. |
| | 2 | Submission includes a good faith visualization |
| | 2 | Submission includes a deceptive visualization |
| | 1 | Submission contains a brief, readable, and accurate description of good faith visualization's interesting pattern. |
| | 1 | Good faith visualization uses an appropriate data→ visual mapping. |
| | 1 | Deceptive visualization contains a deceptive "trick". |
| | 2 | Both visualization designs are justified accurately and clearly. (1pt per visualization) |
| | 4 | Observations included. (1pt per bullet point above) |
| TOTAL | 15 | |