

Project 2 Intro

Elements of Data Visualization (CS 329E)

Mar 9, 2026

Mid-Semester Survey

Project 2 overview

Problem Definition: review the Request For Proposal (RFP) and conduct some research on the company, their leadership, products and services. Explore the provided sample dataset.

Data Analysis: Create visualizations that deep-dive into the business problem, show the correlations, and prove that X is more valuable than Y.

Stakeholder Briefing: Translate your visuals into a 5-slide executive story. Focus on the implications of the data, not the mechanics of the Python code.

Pitch: Present to the company executives. You have 10 minutes. If they ask, "How does this improve our ROI?" you should have a data-backed answer ready.

Interactive Dashboard: Develop an interactive dashboard with Streamlit. This will serve as an evidence repository and allow executives to drill down into specific details.

Project 2 timeline

Milestone 1: Data Analysis, 2 weeks

Milestone 2: Stakeholder Briefing, 1 week

Milestone 3: Pitch, 1 week

Milestone 4: Interactive Dashboard, 2 weeks

Revised class format (post spring break)

Monday/Tuesday: Hands-on work with remaining data formats (network & graph data, geospatial data, etc.). Participation will be based on in-class notebooks. Hints on how to prepare for week's Quiz.

Wednesday/Thursday: Short lecture related to the Project 2 milestone. Group work time. Take Quiz.

Data formats we'll focus on next

Time series data: flu activity in the US, what does it look like year-over-year and by state?

Network data: compare airlines and routes to each other, looking at relationships, flows, hierarchies, communities, and spatial networks.

Geospatial data: air pollution data, what are the geographical distribution, density, clustering and auto-correlations?

Text data: study Shakespeare's works, explore the word frequency, lexical dispersion, and dependency graphs.

Image data: landmark images, what are the categories of those images and distributions? What happens when you reduce the colors? Looking at images taken of a landmark and from a landmark.

Video data: explore national park videos, what are their source, size, compression, and aspect ratios?

**We will study each of these six formats over the coming weeks.*

Initial read-through:

[RFP Catalog](#)

Guest Lecture by [Ruhaab Markas](#):
[Slides](#) and [Recording](#)