# Narrative Visualization Project Essay

**Messaging**

My narrative visualization is intended to state the relationship between years/experience level/country with data science jobs’ salaries from 2020 to 2022, implemented with the “Data Science Job Salaries” Kaggle dataset (Bhatia, Ruchi.) For example, in my second scene, there are more percentage of people has salaries above 190K USD in 2022. It indicates that it is much easier to find a job above 190K USD in 2022. Similar logic could apply to experience level and country in the scene.

**Narrative Structure**

My narrative visualization was designed to follow martini glass structure.

Users cannot play around with the visualization until going through all introduction and three scenes in the top yellow section.

**Visual Structure.**

**There are three scenes in my narrative visualization. All of them are using the same set of visual structure, which are structure, highlight and transition, since the only trigger parameter in the whole visualization is the slider bar.**

**For the structure, it mainly has three bar charts in the whole scene, which are year vs percentage of people on the top left, experience level vs percentage of people on the top right and count of people vs country on the bottom. With this structure, users could easily find out the reflection in all three charts with the minimum salaries amount changing and do the analysis to find out the best combination of year, experience level and country to achieve the selected minimum salaries.**

**For the highlight, it mainly uses the red annotation to do the highlighting work. All the bar charts are in light green color, which makes the red annotations has strong visual contrast with the bar charts. Also, the annotations are pointing to important data items and list out useful information to get the viewer to focus and understand important parts of the data.**

**For the transition, the “Next” button and messages in the top yellow section could orient users to go to the next scene. The “Next” button leads viewers to go to the next scenes. The message in the top yellow section shows viewers which minimum salaries got selected to generate the current scene and what useful information could get from the current scene.**

**Scenes.**

There are three scenes in the narrative visualization, which are selecting 0K minimum salaries in USD, 190K minimum salaries in USD and 300K minimum salaries in USD.

The reason for making the scenes in the order of 0K, 190K and 300K is that in 0K, viewers could view all information gotten from the dataset without any filter, which could help viewers to have an overview about how data displayed in all three charts. Therefore, it placed as the first scene. 0K to 210K is a special range of data that the largest percentage of people in year vs percentage of people chart is always located in 2022. Above 210K is another special range of data that the largest percentage of people in year vs percentage of people chart is always located in 2020. Therefore, to cross compared this year regularity with other two charts, 190K and 300K is selected in numeric order as the parameters of second scene and third scene.

In the first scene, both year vs percentage of people and experience level vs percentage of people charts are show 100% in all categories and in count of people vs country chart the United States has the largest amount of people. It’s shown an overview of the whole visualization data. In the second scene, 190K is a number in the special range that 2022 always has the largest percentage of people. In experience level vs percentage of people chart, Executive-level / Director has the largest percentage and in count of people vs country chart the United States has the largest amount people. These data items indicate that an Executive-level / Director level job in the United States in 2022 is easier to over 190K USD salary. Similar logic applied to the third scene, it’s easy to get a conclusion that an Executive-level / Director level job in the United States in 2020 is easier to over 300K USD salary.

**Annotations.** What template was followed for the annotations, and why that template? How are the annotations used to support the messaging? Do the annotations change within a single scene, and if so, how and why

The template of the annotations in my visualization is in red color and pointing to different data items in each chart. Because the bar charts in the whole visualization are in light green color. The red color is strong contrast to green color which could grab viewers attention easily.

The annotations have red connector which pointing to different data items in each chart, and it includes a bold title and normal label. The title indicates the salary range condition to show the annotation and the label shows the important message that the data items is trying to explain. For example, in the third scene year vs percentage of people chart annotation, the connector is pointing to 2020 data item and title is showing “Above 210K USD Year VS Percentage of People Chart:” which indicate the range of shown this annotation is Above 210K USD salaries. The label is showing “The Percentage of people in 2020 is always more than the other years, which indicates that a data science job in 2020 is easy to be above 210K USD salary.”

**Parameters.** What are the parameters of the narrative visualization? What are the states of the narrative visualization? How are the parameters used to define the state and each scene?

**Triggers.** What are the triggers that connect user actions to changes of state in the narrative visualization? What affordances are provided to the user to communicate to them what options are available to them in the narrative visualization?

Reference:

1. Bhatia, Ruchi. “Data Science Job Salaries.” Kaggle, 15 June 2022, <https://www.kaggle.com/datasets/ruchi798/data-science-job-salaries?resource=download>.