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Projects Reflection
Interactive DataVis
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Reflection

My two projects are related topics that use the same dataset. While the structure of my dataset is simple and straightforward, it however requires more effort to discover different interpretations or probabilities, and therefore, different visualizations.

The first and the most important issue of my projects is deciding the topics and making sure they agree with the criteria of exploratory and narrative visualizations. It was a difficult procedure to use the same dataset and turn it from an exploratory project to a narrative project. While my exploratory vis basically followed the structure of the original dataset and showed all the aspects of the data, for the narrative project I have to do much more analyses of my dataset to find interesting information that can be composed as a "story". For this purpose, I then did other research on people's interests in names or name trends and finally decided the topic of my narrative vis: common or uncommon names.

As for the design decisions, the first difficulty to me was to find the right representation of my data and my topic. I have gone a complete wrong direction at the beginning of my exploratory vis. Without too much experience, I intuitively chose the stacked bar chart to show the different rankings among all the states, however, I soon realized how little I know about my data and what is the stacked bar chart for after I actually did it and have 500 tiny bars with different colors shown up on my screen. Moving on with the failure, I then did studies of other people's data vis of ranking topics and finally got back on the right track.

Above all are the two most important conceptual things I have learned from the projects. Additionally, I have also learned tremendously about front-end web development.

The most important thing I have learned is the fundamental idea of data visualization: the relation between visual elements and the data. My coding process has become more and more smoother as I started to understand this idea.

Practically, the idea is to organize data to the “correct” format for your vis. I put a quotation mark here because correct doesn’t mean there are certain rules for what type of graph using what format of data. However, it would be efficient and sometimes necessary to learn what elements you need for a vis and turn your data into that form. For example, the key point of the racing bar chart is to create an invisible element in the vis and relate it with a made-up data element that doesn’t have value but only has an “index” as the reference for other “real bars” to move.

I have also learned a lot about programming with javascript, especially, using functions to create my own dataset. While d3 is a powerful tool, but it updates really fast, many functions used in online tutorials are probably outdated, and when this happens, I found it could be really convenient to just use javascript instead. For example, instead of using d3’s stack function to form the data for the stacked bar chart, you can also easily create the same format data using the map function of arrays in javascript. Learning this alternative way has saved a lot of time for me and helped me when I really need a unique data format that cannot be created just by d3.

I have learned a lot more other coding tricks and good coding habits in these two projects too. However, there are also some parts that I haven’t completely understood and definitely would like to learn in the future projects, like matching and converting the mouse position to the correct position on the chart, or understanding operating html tags with javascript, for example, maintaining the tooltip box on the right position when window size changes.