**Proposal Part:**

* **Background and Motivation.** Discuss your *motivations* and *reasons* for choosing this project, especially any *background* or research interests that may have influenced your decision.

*The entire society has been shut down couple months since the terrible COVID-19 condition. In this case, I am watching the relative data of all over the world since the first case been claimed in China where is my home country.*

*I never thought it becomes a pandemic when it only shows up in Wuhan, China.*

*But the truth is that the entire human community are facing a difficult time.*

*In this case, I decided to make a data visualization project which related with the daily data of COVID-19 condition all over the world since I see there is a reusable map from our project 6.*

* **Project Objectives.** Provide the *primary questions* you are trying to answer with your visualization. What would you like *to learn and accomplish*? List the benefits.

*Questions:*

* 1. *How the entire world going on every day since the COVID-19 pandemic.*
  2. *If the data of U.S. compare with other countries?*
  3. *Is there a peace end timeline we could expect?*
* **Data.** From where and how are you collecting your data? If appropriate, provide a link to your data sources. Try avoiding a client server model and go for something your browser can handle. (< 100 MB ideally; I will not be able to help with client-server models - you'll be on your own).

[*https://github.com/CSSEGISandData/COVID-19/blob/master/csse\_covid\_19\_data/csse\_covid\_19\_time\_series/time\_series\_covid19\_confirmed\_global.csv*](https://github.com/CSSEGISandData/COVID-19/blob/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_confirmed_global.csv)

* **Data Processing.** Do you expect to do substantial data cleanup? What quantities do you plan to derive from your data? How will data processing be implemented?

*There are some collected COVID-19 world data which will be update every day could be find on GitHub public repos.*

*In this case, the only thing I need play with data is that find a way to load these data without messing up anything.*

*The data type is \*.csv;*

*I would like to use the data from 1/22/20 – today (since I could reach the daily updated data from github).*

*Current problem is that how to load online \*.csv data file to my local project in order to keep all data is newest.*

* **Visualization Design.** How will you display your data? Provide some general ideas that you have for the visualization design. Develop **three alternative prototype designs for your visualization**. Create **one final design that incorporates the best of your three designs**. Describe your designs and justify your choices of visual encodings. We recommend you use the [Five Design Sheet Methodology (Links to an external site.)](http://fds.design/).

**A screenshot of a cell phone

Description automatically generated**

* **Must-Have Features.** List the features without which you would consider your project to be a failure.
  1. **A world map shows at least 20 countries with different color.**

**All countries in the world map could be selected.**

**Able to change countries to color hue by confirmed cases.**

* 1. **Bar chart of confirmed case numbers of countries in the world map.**
  2. **Show the confirmed cases number trend line chart**
  3. **Static show the confirmed cases number trend line chart of the U.S.**
  4. **Show pie chart of the selected country. The pie chart take confirmed number as total, separated in death number, in treatment number and recovered number.**
* **Optional Features.** List the features which you consider to be nice to have, but not critical.
  1. Choose specific time period to show the data info of the world.
  2. Liner predication of a selected country
  3. U.S. states level map info – similar with the entire project (switch from world view to U.S. states level)

**Data Confirm Part:**

A close up of text on a white background

Description automatically generated

<https://sparklescn.github.io/CIS399_Vis_FinalProj/>

check the console to see the printed out dynamic dataset.

**Code Confirm Part:**

<https://github.com/SparklesCN/CIS399_Vis_FinalProj>

Online Github Repo

README:

# COVID-19 World Confirmed Cases Vis

Online GitPage: <https://sparklescn.github.io/CIS399_Vis_FinalProj/>

Features:

1. World Map show different regions with gray circle;
2. Mouse hover on region circles to show up details info (name, confirmed cases);
3. Dynamic Top20 Region with highest confirmed COVID-19 cases;
4. Dynamic Selected Region Scatterplot Chart for Past 30 Days;
5. Dynamic U.S Scatterplot Chart for Past 30 Days;