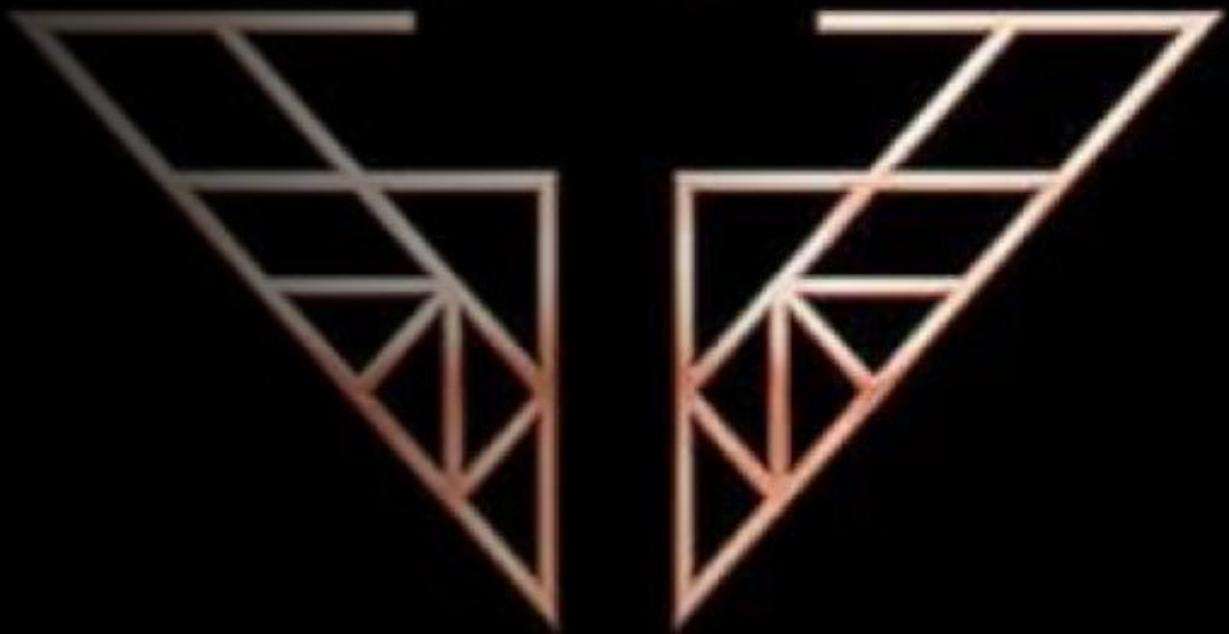


QuickVis

Charlie's Angels

PEARC 20 Hackathon



Meet the Team



Helena Coker

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Git Hub

https://github.com/hectorsantiago5/pearc20_quickviz



Problem Tasked



Scientists need a tool to visual data quickly in a simple and easy manner without computational science experience on their part.

Scope

Import

Users can import their own datasets



Choose

Users can select how their data is processed

Plot

User's data is visualized geographically or graphically

Analyze

User's visualization and results are analyzed

What We Learned



How to use

- Leaflet, Echarts, charts.js to display data on graphs and maps
- Passing data between any application and a jupyter notebook
- Learned how to make a website with 4 pages interacting
- Learned how to use google cloud
- Learned how to code in CSS
- Learned how to use GitHub and Repl.it properly

What We Started With



Started with:

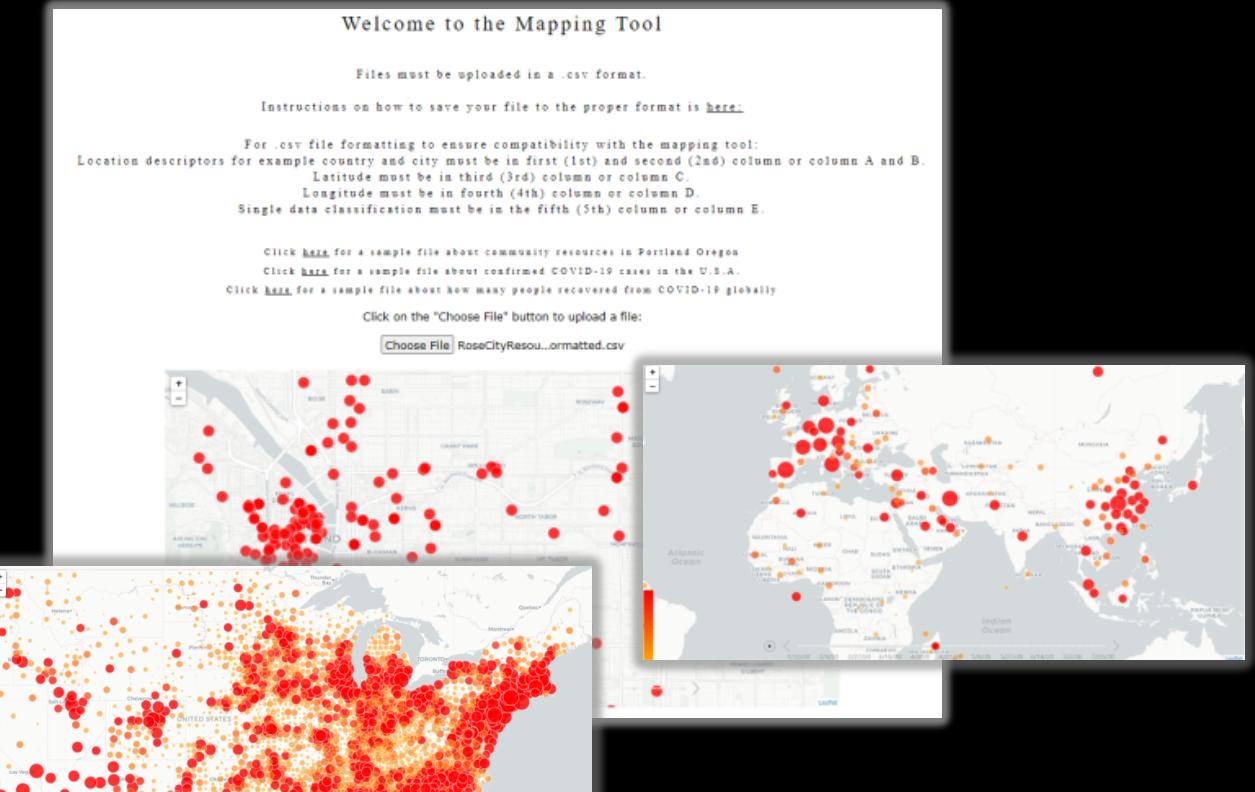
- Nonfunctional static map
- Nonfunctional file uploader
- Rough single page website template

Deliverables

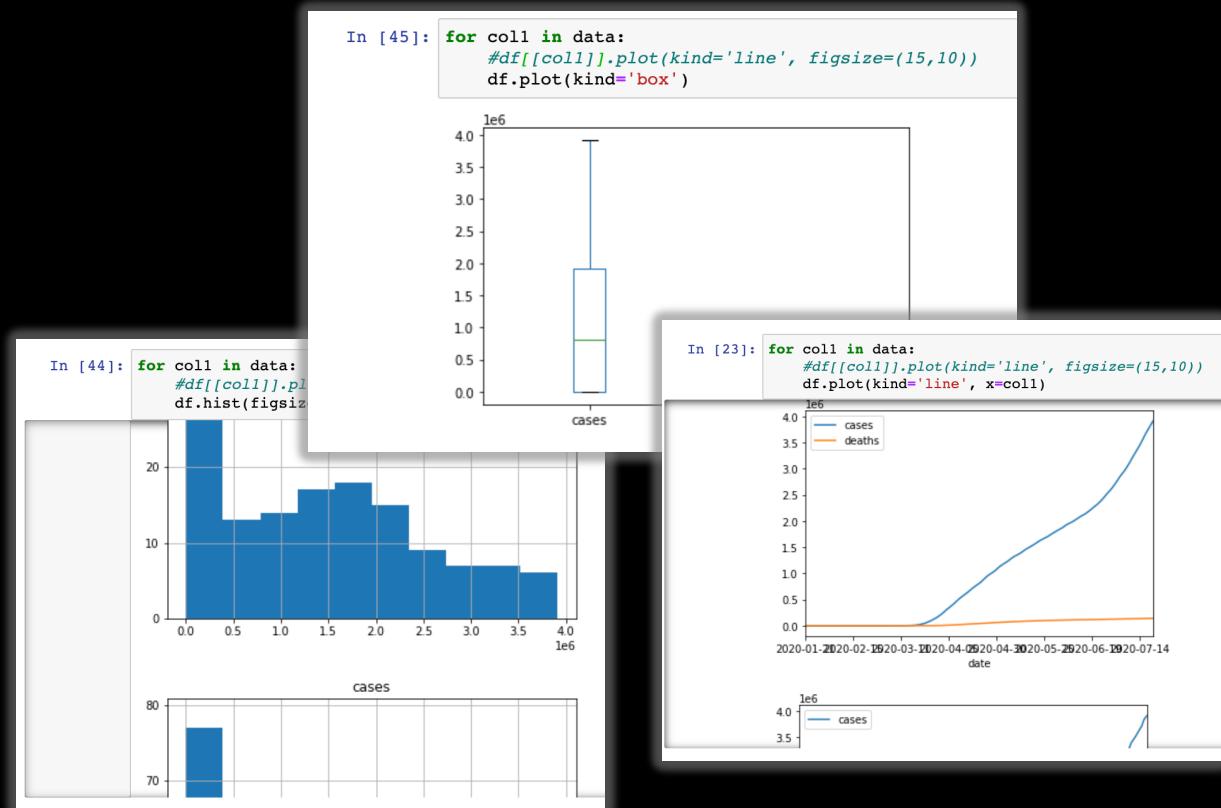


A fully functioning tool set that takes users data and displays it as a map or graph

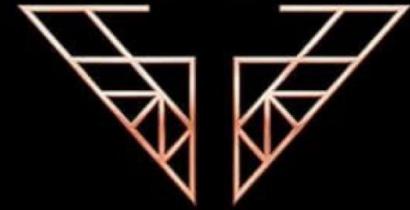
Mapping Tool



Graphing Tool



Future Work



- Working on expanding displaying users' data types
 - Box plots, line plots, bar plots, etc.
 - Mapping multi-variable dataset
- Statistical Analysis
 - Linear regression
 - Box plot and scatter plot and toggle bell curve feature
 - p-value with either standard alpha value (0.05) or feature to add their own
- Machine Learning and Predictive Analysis
 - One to locate areas of interest in a dataset
 - One for user assistance such as suggesting analysis types or possible formatting conflicts
 - One for user personalized such as recalling analysis they previously used on the site upon return

Our Thanks To



Charlie Dey



Linda Hayden



Chris Lanclos



Marlon Pierce

Our Thanks To



Git Hub



https://github.com/hectorsantiago5/pearc20_quickviz



Data Sources



- [https://github.com/CSSEGISandData/COVID-19/tree/master/csse covid 19 data/csse covid 19 time series](https://github.com/CSSEGISandData/COVID-19/tree/master/csse_covid_19_data/csse_covid_19_time_series)
- <https://opendata.imspdx.org/dataset/rose-city-resource-dev2>
- <https://www.bfro.net/>
- https://github.com/CSSEGISandData/COVID-19/tree/master/csse_covid_19_data/csse_covid_19_time_series
- <https://data.world/us-doe-gov/0fd3e1b2-0e53-4e37-b822-7c3e810fe78c>

Demo Time!



The image is a composite screenshot of a desktop environment during a presentation. On the left, a PyCharm IDE window displays code for a Python application named `pyperc20_quizviz`. The code handles file uploads and rendering templates. On the right, a Zoom video conference interface shows four participants: Cesar Monsalud III, Lena Coker, Hector Santiago, and Najim Mohamed. Below the video grid, a Microsoft PowerPoint slide titled "Deliverables & Demo" is displayed, featuring sections for "Mapping Tool" and "Graphing Tool" with corresponding screenshots. The desktop taskbar at the bottom shows various open applications, including a terminal window with a log of requests and a GitHub commit history.

Code Snippet from `pyperc20_quizviz/app.py`:

```
if request.method == 'POST':
    if 'file' not in request.files:
        flash('No file part')
        return redirect(request.url)
    file = request.files['file']
    if file.filename == '':
        flash('No selected file')
        return redirect(request.url)
    if file and allowed_file(file.filename):
        filename = secure_filename(file.filename)
        file.save(os.path.join(app.config['UPLOAD_FOLDER'], filename))
        flash('Successfull upload')
        return redirect(url_for('upload_file'))
    flash('File %s' % filename)

return render_template('data.html', **request.args.get('filename'))
```

Terminal Log:

```
git:(master) % git push -u origin master
Pushed 2 commits to origin/master (11 commits received during the push). View received commit (moments ago)
git:(master) %
```