QuickVis

Charlie's Angels

PEARC 20 Hackathon

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Meet the Team

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Git Hub

https://github.com/hectorsantiago5/pearc20_quickviz

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Problem Tasked

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

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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

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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 and HTML
- Learned how to use GitHub and Repl.lt properly
- Learned how to connect Flask app with Java script to send to Jupyter Notebook
- Learned Jupyter notebook and Pandas to create data visualizations

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What We Started With

Started with:

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

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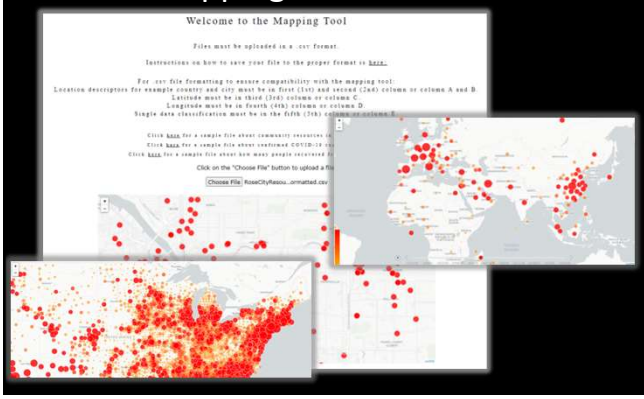
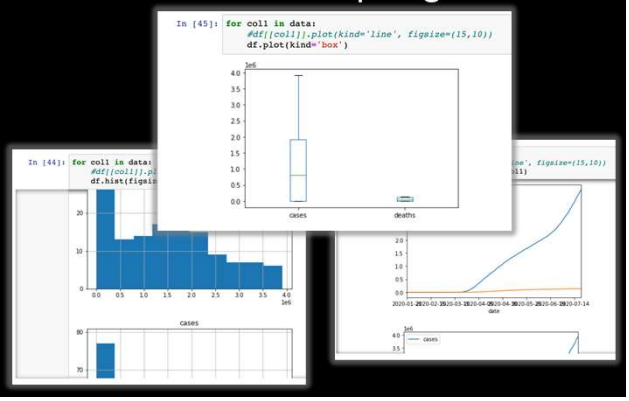
Deliverables & Demo

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

Mapping Tool



Graphing Tool



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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

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Our Thanks To

Charlie Dey

Linda Hayden

Chris Lanclos

Marlon Pierce

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Our Thanks To

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Data Sources

- 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

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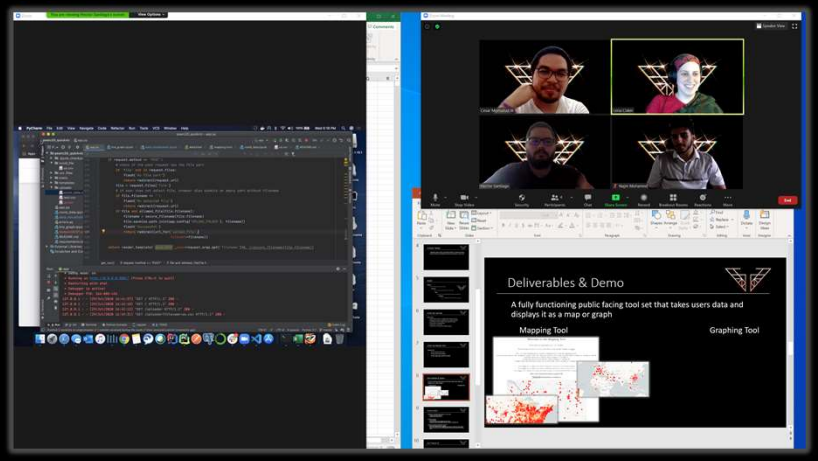
Thank you for Listening!



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