Street Sweepers

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Team Mentors:
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Team Song: Life is a Highway

Highway to HPC
Final Presentations
Exit in 2 miles

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Problem Statement

With an abundance of data detailing traffic related incidents from TrafficVision, what type of analysis and visualizations can be provided to best inform local DOT’s allocation of resources to best keep traffic running safely and efficiently

Information for the State of Tennessee but the program will be able to work with data from Georgia’s TrafficVision installation.

Question asked: How can we (the programmers) help TNDOT/GDOT visualize their data and allocate their resources?
The Goal

- Creating data visualizations from traffic analytics to better inform decision making of the TNDOT/GDOT
- Focus on a heat map of stand still traffic to inform location of HERO trucks
- Focus on incident locations over time
- Identifying problem areas by charting cameras with the highest incident counts
Goals Reached and Next Steps

- **Accomplished**
  - API calls successfully made to Traffic Vision
  - Data aggregated
  - Data Visualized
  - Developed Dashboard for visualization

- **Next Steps**
  - More visualization and analysis with Traffic Vision data
What was Learned

- **Tools & Languages utilized**
  - HTML
  - R
  - Python
  - Google Colab
  - High Charts
  - Pandas
  - Google Cloud Platform
  - Mapbox API
  - JSON

- **Troubleshooting**
  - Utilizing Google's Developer tools to analyze issues

- **Pair Programming**
Links


Demos:

- Data Aggregation
- Dashboard Tour and R
- Incidents Geographically Mapped with a Time Slider
Thank You!!

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Slider Visualization Demo