Traffic Accidents

Group Members:
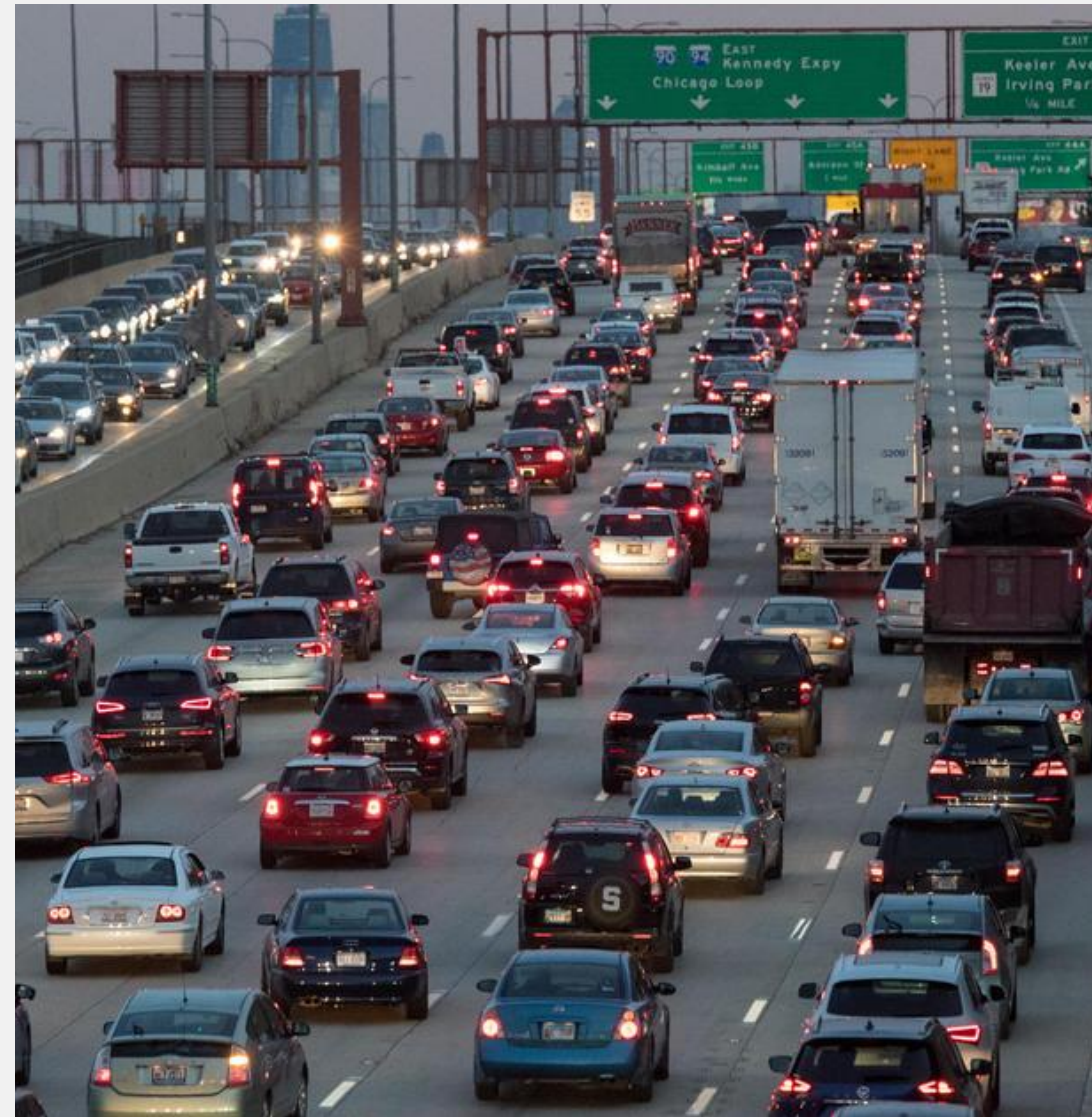
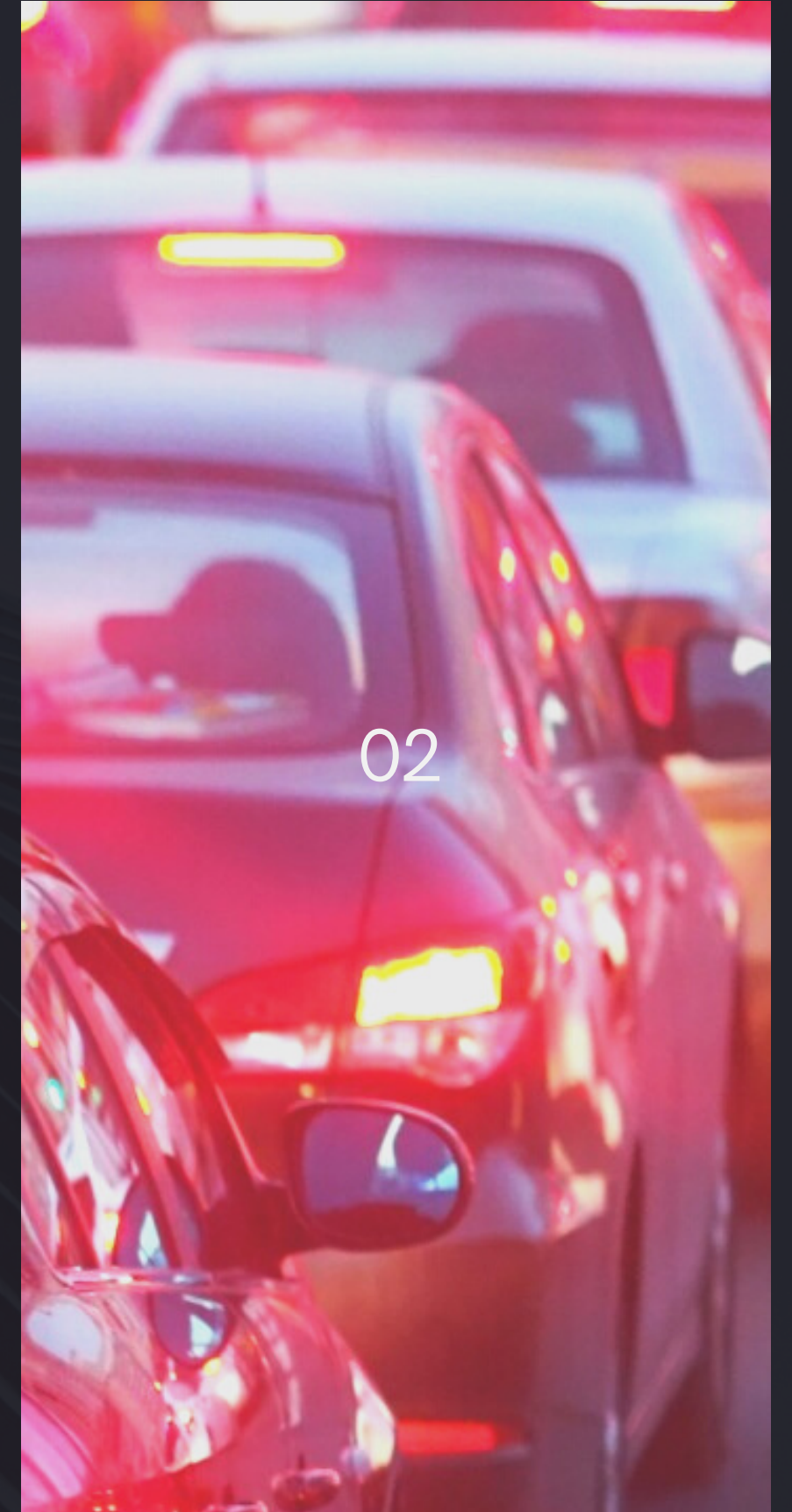David Obembe

Ryan Thomas

Brian Yu

Will Pumphrey

John Dilligard

01

Overview

Analyzing traffic accident data across the
United States -- examining time, weather
elements, severity, and location.

02

02

Sources of Data

- "A Countrywide Traffic Accident Dataset "- by Sobhan Moosavi and co.

- "Accident Risk Prediction based on Heterogeneous Sparse Data: New Dataset and Insights." - by Sobhan Moosavi and co.

03

Coding Wins

04

- Learned how to use a new javascript library called "lodash". Allows you to perform functions like "groupby".
- Gained respect for python and pandas when it comes to manipulating data.
- Acquired black belt in filtering leaflet maps and plotly charts using drop-downs.
- Developed understanding of the importance of APIs (i.e speed).
- Used plotly to create a cloropleth map.
- Created a banging website design.
- Getting the tool-tip to work with bootswatch and D3

Difficulties

05

- Reducing data size
- Minimizing the number of data points to effectively visualize accident data by day
- Finding correlations between weather elements
- Sorting the stacked bar chart based on accident count.
- D3 plot
- Radar Chart

Visualizations

GEOGRAPHICAL DISTRIBUTION

Map illustrating the distribution of accidents across the United States

YEAR ON YEAR COMPARISON

Bar chart comparing the volume of accidents during the day opposed to night

ACCIDENTS BY DAY

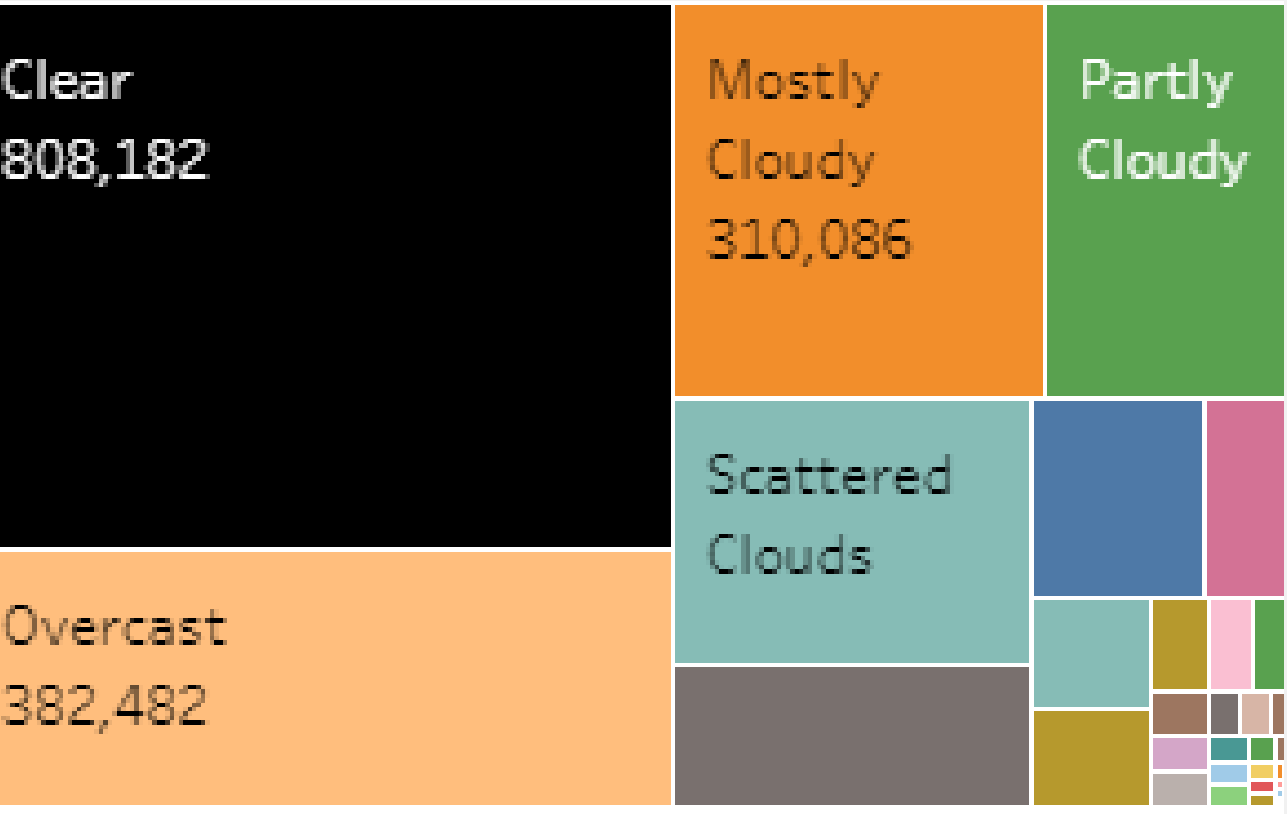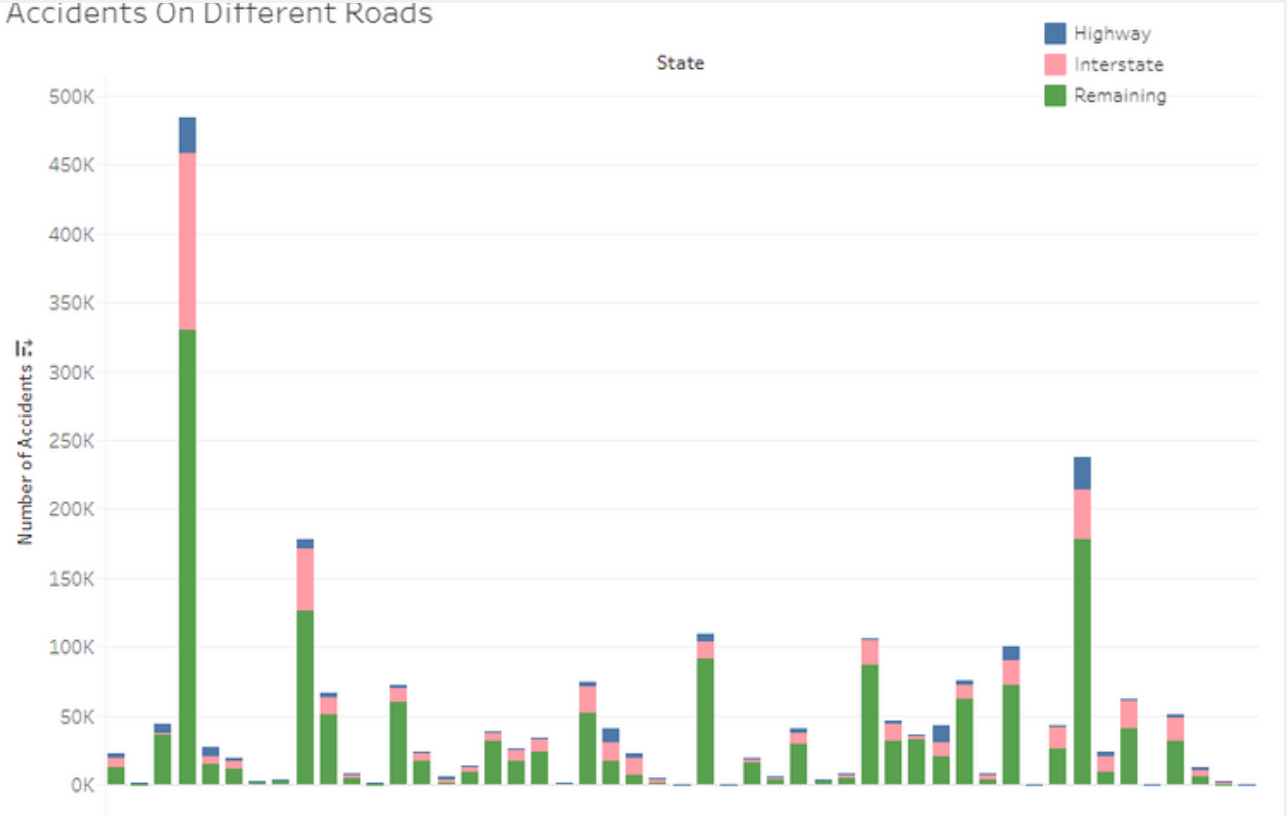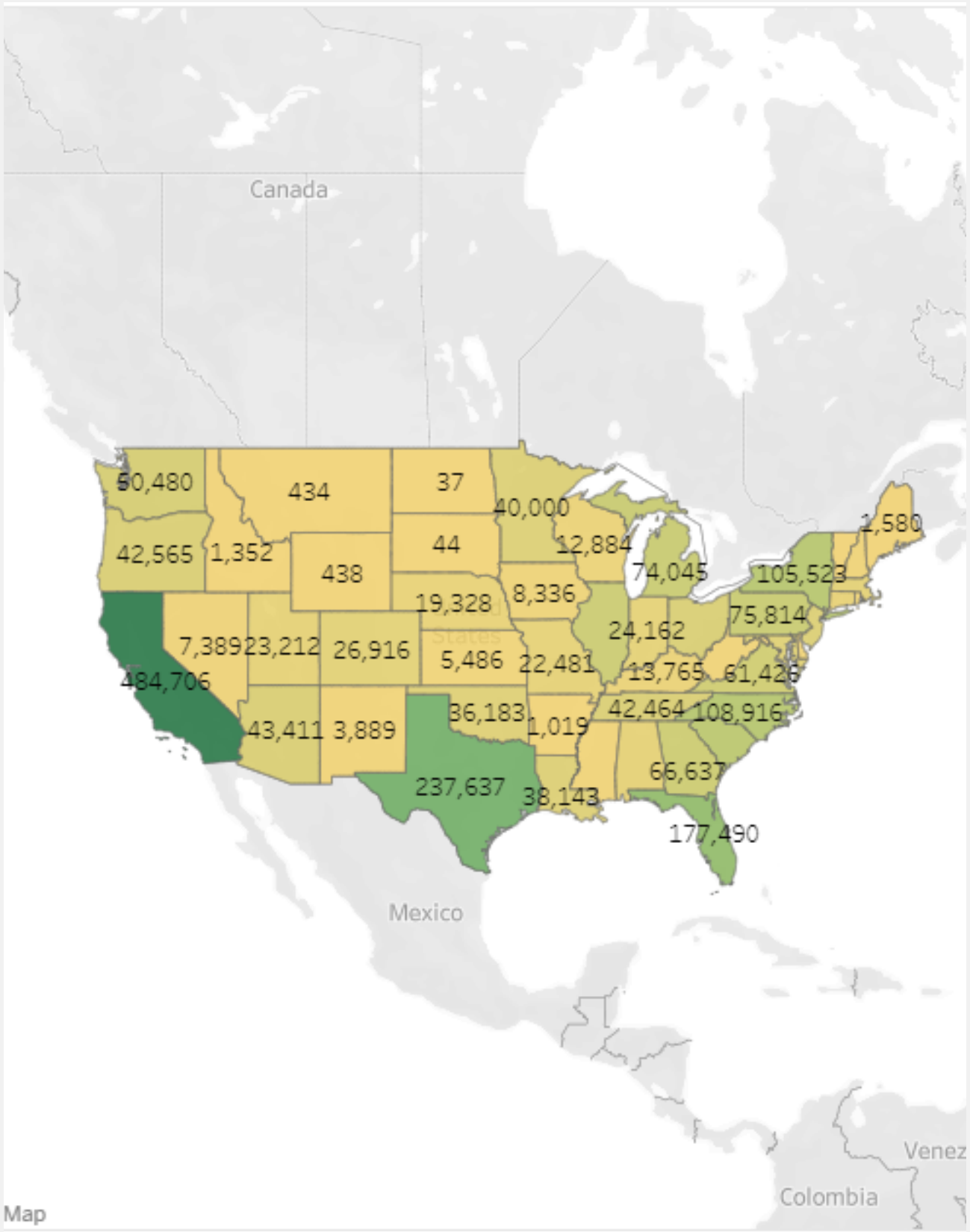Scatter plot of daily accidents by day and night

ACCIDENT SEVERITY

Line chart comparing severity over day and night

THE DASHBOARD

Inspiration

07

"THERE ARE NO TRAFFIC JAMS ON THE EXTRA MILE."

08

- ZIG ZIGLAR

Summary of Results

- *Majority of accidents happen in the east coast*
- *Lockdown accidents have reduced due to fewer cars on the road with exception to CA.*
- *More accidents occur during the day and rises during the summer.*
- *The highest number of accidents occur between 4pm-5pm*