EV Explorer

DSCI 554 Data Visualization

Team H
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Project Description

- We have targeted three group of potential users to created the project on our data visualization project on electric vehicle data from Washington state and entire United States.
    - EV industry investors
    - Prospect EV purchaser
    - Policy makers

Project Guideline

- Dashboard Overview
- EV vs Non-EV(line chart)
- BEVs vs PHEVs registered yearly(stack bar chart)
- EV adoption distribution in counties from WA(choropleth map)
- EV miles range for PHEVs vs BEVs(histogram)
- EV dataset

Dataset

1. **Electric Vehicle Population Data**
    a. Shows information of Electric Vehicles (EVs) that are registered through the Washington State Department of Licensing (DOL)
    b. 159K rows, 17 columns, each row is a vehicle
2. **Electric Vehicle Population Size History By County**
    a. Shows the number of vehicles that were registered by WA DOL each month
    b. 19.4K rows, 10 columns, each row is a monthly count of vehicles for a county

Preprocessing

1. **Electric Vehicle Population Data**
    a. Dropped rows with missing values
    b. Converted and separated the “Vehicle Location” column to “Latitude” and “Longitude”, and transformed to decimal data type
    c. Converted multiple columns to appropriate data types
2. **Electric Vehicle Population Size History By County**
    a. Conducted exploratory data analysis
    b. Inspected missing values, dropped rows with missing “County” or “State” value
    c. Converted “Date” column to datetime format
    d. Checked for anomalies

Team Members & Responsibilities

Name	Responsibilities
Yingkai Zhong	Description, Storytelling, and EV Selling by Type Bar Chart
Yuchong Chen	Data Acquisition, Data Preprocessing, and Histogram
Nan Jiang	Data Preprocessing, and Line Chart
Hongyi Wang	Landing Page, Dashboard, Choropleth, Dot Map, Tables, Bootstrap

Demo