Analyzing the Surge of EVs in Washington State

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Introduction

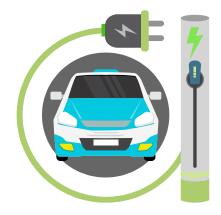


- EV is the future of sustainable transportation
- Analyze various factors driving EV adoption in Washington State, including tax credits and infrastructure investments
- Evaluate the progress and challenges of EV charging infrastructure development
- Investigate public perception of EVs in Washington State and propose strategies to enhance awareness

Data Summary

Electric Vehicle Population Dataset (Kaggle)

- The data was collected from the Washington State Department of Licensing and provides a comprehensive overview of currently registered Battery Electric Vehicles (BEVs) and Plug-in Electric Vehicles (PHEVs)
- 166801 Rows x 17 Columns
- Features include:
 - Country
 - Make
 - Model
 - EV Type
 - Base MSRP



Data Preprocessing

Cleaning

Identify missing data points and either impute, remove, or fill them

EDA

Explore initial variables to understand overall layout

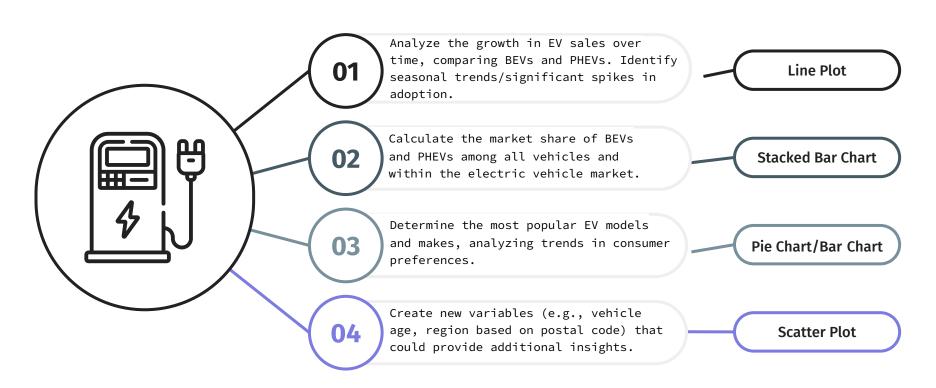
Standardization

Standardize/normalize various quantitative metrics

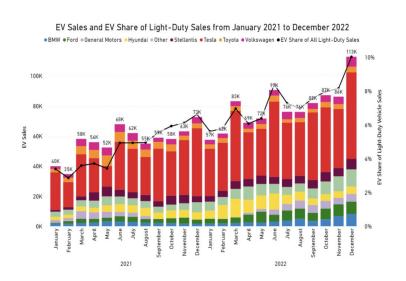
Feature Engineering

Create new variables
(e.g., vehicle age)
that could provide
additional insights

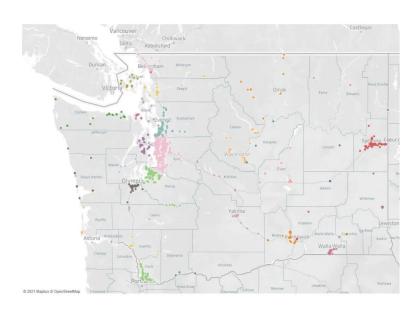
Visualization/Analysis Plan



Example Static/Interactive Visualizations



EV Sales and EV share of light duty sales



Locations of active electric vehicle chargers