SEIS631-02 Final Project draft

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What

My project is about analying the growth of electric vehicle sales across The United States. I throught of figuring out by when all the vehicles on the road will be battery powered. A number of states are trying to pass laws banning the sale of new gas vehicles by 2035. Considering the last gas vehicle sold in 2035 and average life of vehicles, I expected the last gas powered car on road to run till 2050. In real life a lot can happen that might deviate from this analysis. With growing number of electric vehicles gas might not be available for average consumer to run thier vehicles. We might run into EV production problems due to the trend in chip shortages we are facing now. The technology might develop in a different direction causing EV sales to decrease or ICE vehicle sales to increase.

Why

Transportation is one of the main technological advancement that has improved mankind's survival. It allowed us access to almost all corners of the world. The last few years have seen a drastic change in the direction of the transportation technology. We saw hige growth in electric vehicles with the success of Tesla. EV's are no longer seen as inferior to ICE vehicles. This made me think about what my next vehicle purchase would be. Would I still be able to run my gas powered vehicle in future or would it be too expensive to maintain. So I wanted to do a small analysis on the growth of EV vehicles and reduction of gas vehicles over the years. It is too early to get good data to see reduction of ICEs. Still I wanted to find if we will fully embrace EVs by 2050.

How

I got data for the EV registrations. It has throusands of data. However, I had difficulty finding gas vehicle registrations data. Probably EV manufacturers are actively publishing their data to show the growth which in turn could increase their growth further. I found some excel files and imported the data to RStudio. I will persome some plots and histograms to see where the data is skewing towards and the rate of growth to see how long it will take if we keep up the growth trend.

Body

Collecting Data and bringing it into R

I got the registration data from the website below:

https://www.atlasevhub.com/materials/state-ev-registration-data/#data

Here is a graph I got from the website that shows EV sales by Model.

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knitr::include_graphics('D:\\Study\\Foundation of Data Analysis\\Final Project\\Graph1.png')
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