

Daniel Herfurth

## Project 3 Proposal

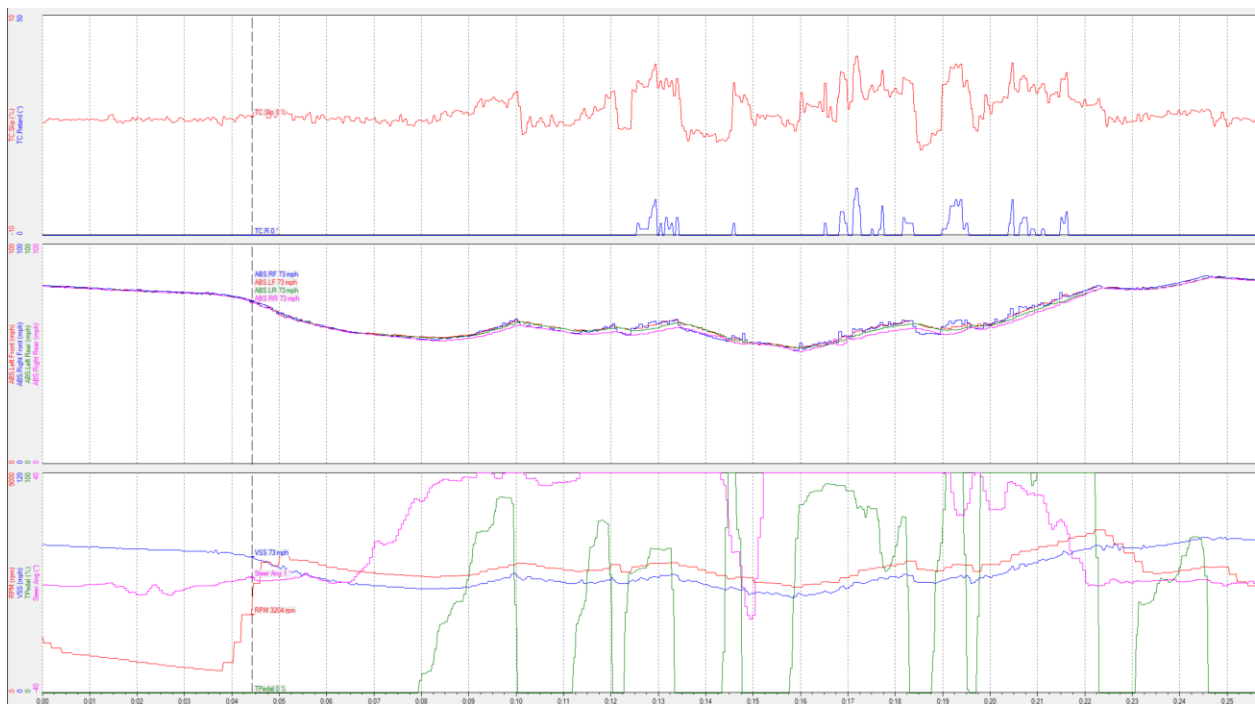
For this project, I will be visualizing data obtained from my car after performing an upgrade and during a lap around a track.

For the data obtained after the upgrade (I installed a larger intercooler), I will be able to verify that I didn't mess anything up during installation. Since the part upgraded was a part of the turbocharging system, I will be looking at values like mass air flow, boost-related values, and knock values.

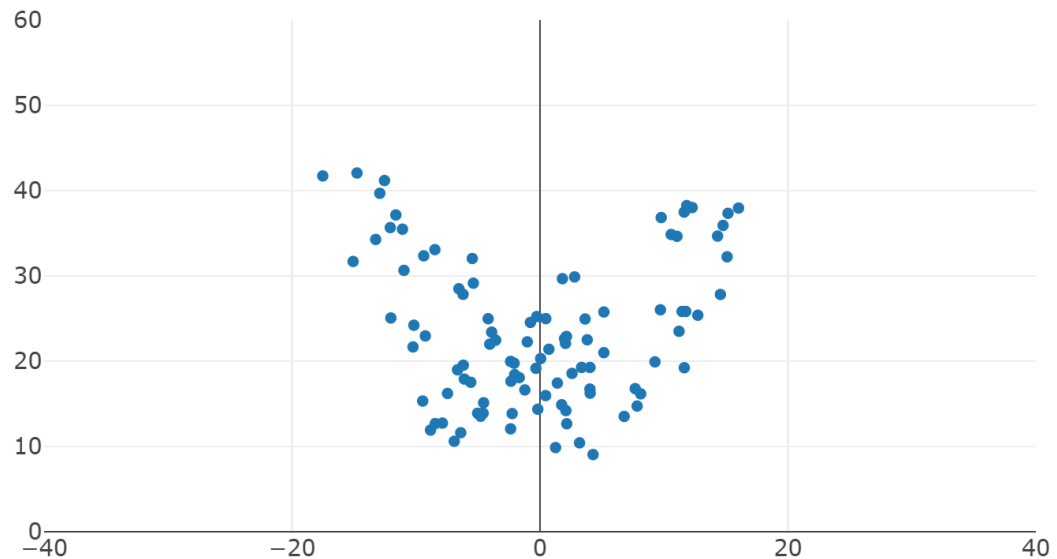
For track data, I will be looking for areas in my driving where I did well and areas that need to be improved.

This dataset will allow me to get very granular with ways to improve my techniques (e.g., by showing me exactly where I lost traction from entering a turn too fast).

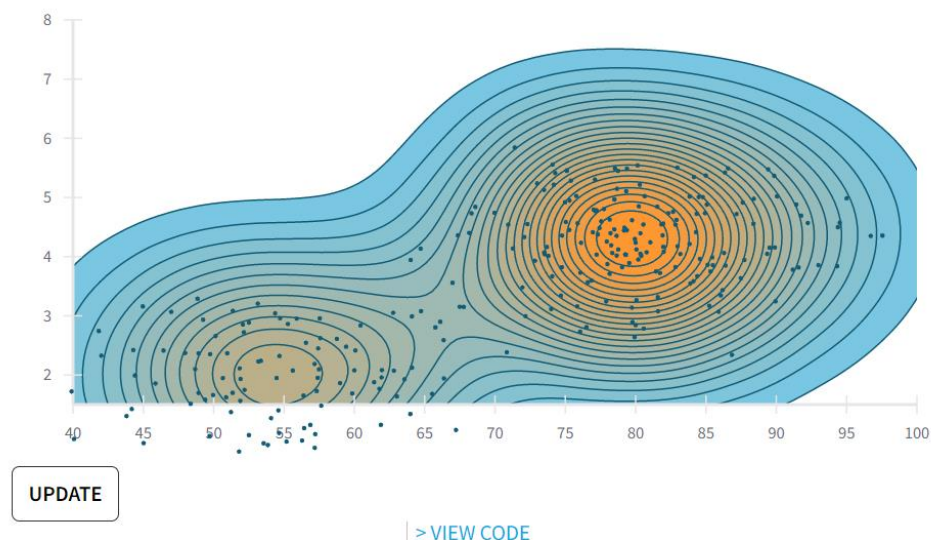
1. This plot was made by the datalogging software and shows when I lost traction along with conditions that would have caused it. This graph will be invaluable to bettering my driving.



2. This is the plot that [Plotly](#) uses to demonstrate animation. I plan to animate a graph of g forces and have no idea how to animate things.



3. A contour map will help me identify areas where both good and bad things happened by showing where certain events occurred with others (e.g., engine cam retard time vs. brake pressure in corners. This is also react-vis, so it is the library I will be using that we didn't cover in class.



The first page of my presentation will be the long-term data gathered to make sure that the parts were installed correctly. After that, I will have an animated plot of g forces over time accompanied by one of charged air in the engine over time. Finally will be plots such as the contour plot mentioned above that allow me to zero in on particularly good and bad areas of my driving.

Link:

- [Project](#)
- [Data](#)