CST:383 Intro to Data Science

Data Visualization

Mathias Lund Ahrn

# Graph representation of power / torque profile of a car engine

<https://vfengineering.com/products/hex-rs6> (8/31/2019, 3.22 pm)

The graph below is used to showcase a car tuning company´s ability to increase an engine’s raw performance through ecu (engine control unit) tuning.

Et bilde som inneholder kart, tekst

Automatisk generert beskrivelse

## Brief explanation

This graph shows the correlation between torque and horsepower at different rpm in a car engine. At low rpm’s, torque is greater than horsepower. As rpm’s get higher, torque fades and power increases. The dotted line represents the engine’s performance before tuning.

## What is this useful for?

These results can be used for optimizing the engine’s performance to increase gas mileage and/or optimize its horsepower/torque settings in different driving scenarios, comfort, sport, race mode etc. This can be handled through e.g. changing the profile of the transmission or the ecu.

I find this visualization interesting because I enjoy looking at performance data and interpreting it for different objects such as lightbulbs or cars for example. After analyzing the data, I look for ways to optimize the performance, effectiveness and productiveness in different scenarios. In that way, this graph represents something I really enjoy doing research for.