TRUCK ANALYSIS

Presented by Team Han Volvo

Ioannis Batsios
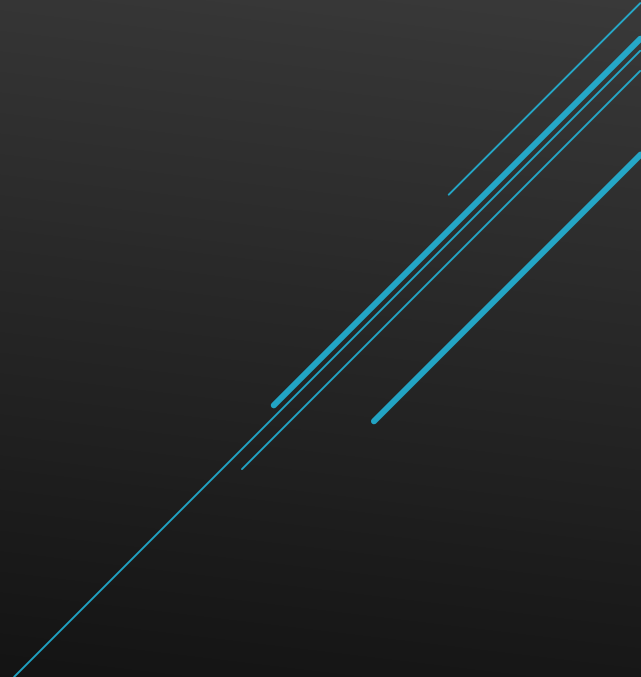
Bill Downs

Wahab Ehsan

James Polk

Christopher Thacker

MAIN OBJECTIVE

- Volvo is looking to create the best product for its consumer. To do that, they measure every statistical component imaginable to find patterns and improve overall performance of their vehicle.

- Our goal is to pour over the data and find those anomalies so that their engineers can modify specific parts or designs to improve their truck.

TASKS

- ❖ Clean data
  - ❖ Many empty values in columns
  - ❖ Many incomplete columns
- ❖ Organize data
  - ❖ Data taken every 100th of a second…how to organize?
    - ❖ Every second, minute, hour, etc..
    - ❖ Group by truck, weight, location, etc..
- ❖ Label Data
  - ❖ Data in engineering jargon…translate to understandable language
- ❖ Create statistical models
  - ❖ Code should be reusable so can run same models in each column
- ❖ Visualization
  - ❖ Prepare charts and graphs that are more digestible and easier to understand
- ❖ Hypothesize
  - ❖ What did we learn from the data?
  - ❖ What is our margin of error?

CHALLENGES

- ▸ Understanding best practice for organizing data
- ▸ We're not engineers, so understanding what each test means and why it's important
- ▸ No specific goal from Volvo, so less direction than used to
- ▸ Limited access to data, so chances of discovering an anomaly is lessened
- ▸ Creating a model that can be used outside of the project

Team Republic

Bill Downs
James Polk

Tasks

Responsible for cleaning, organizing, labeling for short-haul truck

Team Rebels

Ioannis Batsios
Christopher Thacker

Tasks

Responsible for cleaning, organizing, labeling for long-haul truck
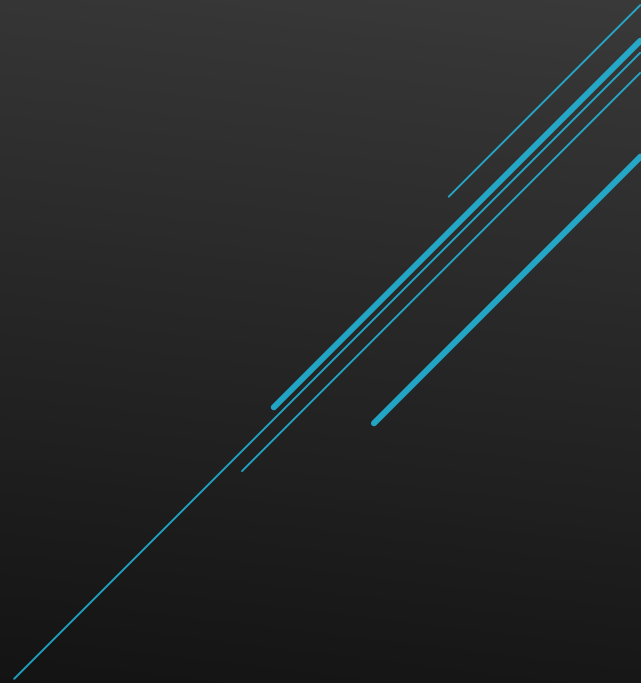
Boba Fett

Wahab Ehsan

Tasks

Keeping everyone on task and assisting
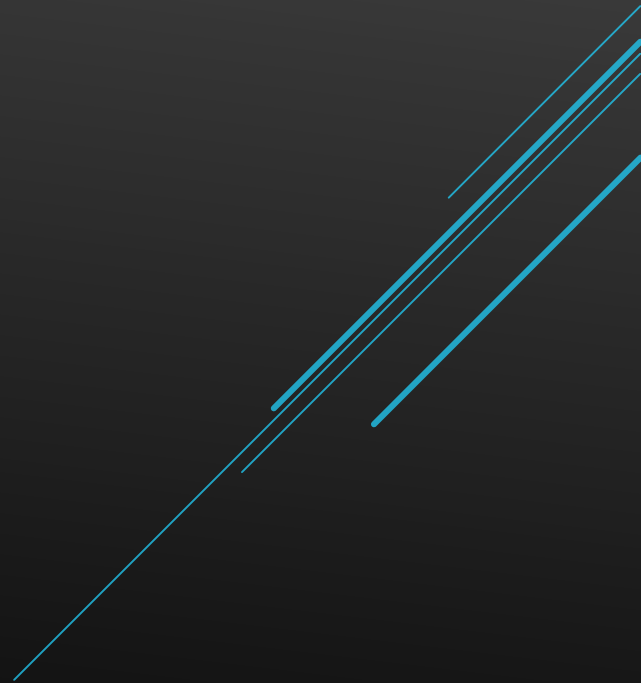Curating GitHub
Developing statistical models for both teams

SUB-GROUPS

PROCESS

DATA ANALYSIS

VISUALIZATION