Developing Data Products Course Project Pitch Presentation

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February 26, 2017

Introduction

- This presentation is for the Developing Data Products Course Project.
- This presentation was created using Rstudio Presenter.
- The Shiny application pitched by this presentation is accessible here: `https://samspallone.shinyapps.io/ddpcourseproject/`
- The Shiny application source code is available here: `https://github.com/SamSpallone/Developing-Data-Products.git`

Purpose of the Shiny Application

- The Shiny application I created helps to predict the annual number of deaths in road accidents for half the US states, using number of drivers (in 10,000s) from the "road" dataset.

More About the Dataset

The "road" dataset is a data frame with the annual deaths in road accidents for half the US states. The columns are:

- "state" –> name
- "deaths" –> number of deaths
- "drivers" –> number of drivers (in 10,000s)
- "popden" –> population density in people per square mile
- "rural" –> length of rural roads, in 1,000s of miles
- "temp" –> average daily maximum temperature in January
- "fuel" –> fuel consumption in 10,000,000 US gallons per year

Source: Imperial College, London M.Sc. exercise

How to Use the Shiny Application

The application is simple to use. There is a slider bar for selecting the number of drivers (in 10,000s), which ranges from 11 to 952. There is also a check box to show or hide the fitted line of the model. Hit the "Submit" button to refresh the graph.

The graph shows the fitted line from the model lm(deaths $\sim$ drivers, data $=$ road). The predicted number of annual deaths for the selected number of drivers, based on the mode, is shown below the graph.