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Assignment: **4.2 Portfolio Milestone 1 ReadMe Files**

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**Case Study on Formula 1 International Racing Analysis**

A case study on exploratory data analysis (EDA) and coding of bring together different types of data sets to perform the analysis of what it takes to win in Formula 1 racing. Includes merging of driver information data, racing tracks information, with manufactory data and various complex data transformation to complete the analysis. Using Python to perform the EDA with data from 1950 to 2020 in determining the direction the sport has taken. The analysis provided information on winning driver age and successful constructors.

The secret is younger drivers have better winning records with proven constructors. As seen in the 2021 season with Max Verstappen winning the Drivers’ Championship racing for Red Bull and Mercedes winning the Constructors Championship. Hamilton is 12 years older than Verstappen. The analysis shows Verstappen having better odds now that Hamilton is over 35 years old.

In the Constructor Championship Mercedes is proven builder. Not only do they build cars outside of racing but have been doing it for well over a century. The Constructor that aided Red Bull has been in and out of Formula 1 for years. They were in their last year with Red Bull as official suppliers.

The analysis shows how age of winning drivers has been dropping for many years. While age of winning Constructor is on the more experienced and well-funded teams. The analysis also shows where most of the talented drivers come from. Europe and South America really have a hold on winning drivers. As American drivers and American Constructors have not done well do date.