**Introduction**





In this capstone, we will predict if the Falcon 9 first stage will land successfully. SpaceX advertises Falcon 9 rocket launches on its website, with a cost of 62 million dollars; other providers cost upward of 165 million dollars each, much of the savings is because SpaceX can reuse the first stage. Therefore if we can determine if the first stage will land, we can determine the cost of a launch. This information can be used if an alternate company wants to bid against SpaceX for a rocket launch. In this module, you will be provided with an overview of the problem and the tools you need to complete the course.

Less

### Learning Objectives

* Use data science methodologies to define and formulate a real-world business problem.
* Use your data analysis tools to load a dataset, clean it, and find out interesting insights from it.

# **Course Introduction**

Hello! And welcome to this capstone course.

Congratulations for making it this far! My name is Joseph Santarcangelo, Yan Luo and Azim Hirjani . We are pleased to be your instructors and course developers for this capstone course. You will apply your data science skills as a Data scientist for a private space launch company in this project.

As a starting point of almost all data science projects, you need to collect data, as much and relevant as possible.

You will be collecting data from various sources. After your raw data has been collected, you will need to improve the quality by performing data wrangling.

Then you can start exploring the processed data.  We will be your guide as we explore some really interesting real-world datasets together. You'll get to practice your SQL skills as we query the data and gather insights.

You'll gain further insights into the data by applying some basic statistical analysis and data visualization, you'll be able to see directly how variables might be related to each other.

 We'll drill down into finer levels of detail by splitting the data into groups defined by categorical variables or factors in your data.

You will be guided to build, evaluate, and refine predictive models for discovering more exciting insights.

The final task of this capstone project is to create a presentation that will be developed into stories of all your analysis.

Thanks and good luck!