

A dark blue background featuring a bright white star in the upper right and a curved white light trail from a rocket launch in the lower left.

# Data Science Capstone Project

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**SPACEX**

# Outline



- Executive summary
- Introduction
- Questions
- Methods
- Results
- Conclusion
- Appendix

# Executive summary



## Summary of Methodologies

- Data Collection
- Data Wrangling
- Exploratory data analysis (EDA)
  - Data visualization
  - SQL
- Interactive Visual Analytics
  - Interactive map (Folium)
  - Dashboard (Plotly & Dash)
- Predictive Analysis (Classification)

## Summary of Results

- EDA results
- Geospatial analytics
- Predictive analysis results

# Introduction



- **SpaceX Success in Commercial Space Age**
  - Leading company in making space travel affordable
- **Falcon 9 Launch Cost**
  - Advertised cost: \$62 million
  - Other providers: \$165 million or more
- **Cost Savings Mechanism**
  - Reusability of Falcon 9's first stage
- **Predictive Goal**
  - Determine if the first stage will land
- **Methodology**
  - Utilizing public information and machine learning models
- **Objective**
  - Predict whether SpaceX will reuse the first stage for cost estimation