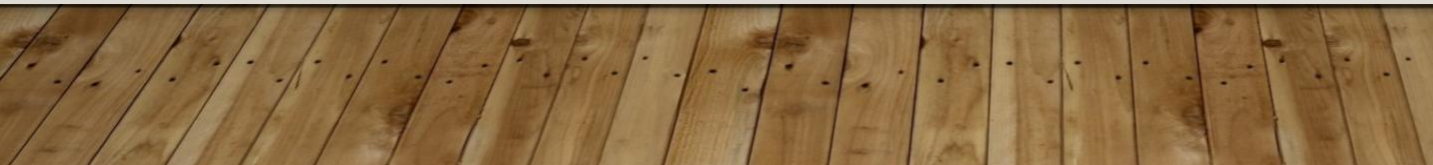


IDENTIFYING LOW- RISK AIRCRAFT USING AVIATION SAFETY DATA

PRESENTED BY: CATHERINE GACHIRI

DATE: JULY 2025



PROJECT OBJECTIVES

Main Objective:

- Identify low-risk aircraft models using historical NTSB accident data to support informed aviation investment decisions.

Sub-Objectives:

- Analyze accident trends from 2013-2022.
- Clean and standardize aviation safety data.
- Develop a risk scoring model based on incident frequency.
- Visualize trends using Python generated & Tableau dashboards.
- Recommend low-risk aircraft models.
- Propose future improvements using broader and predictive data.

WHY AIRCRAFT RISK MATTERS IN AVIATION INVESTMENT

Key Aviation Themes:

- Safety → Insurance
- Risk → Cost
- Reputation → Profitability



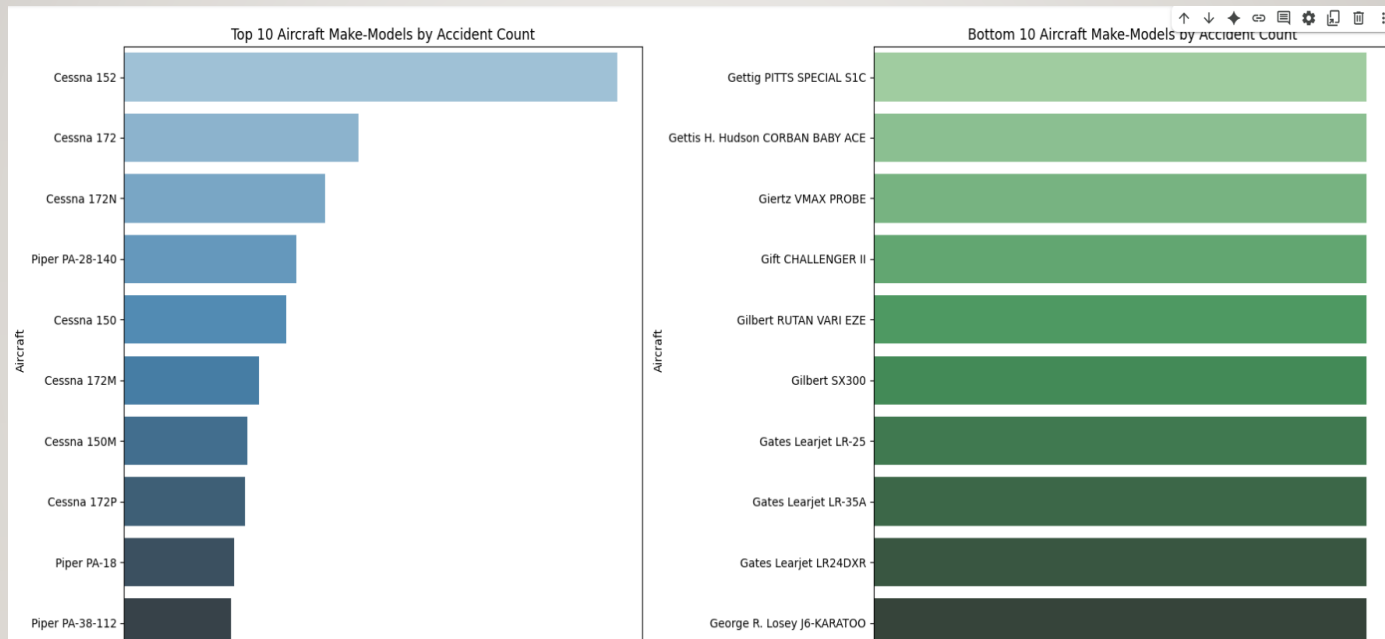
AVIATION ACCIDENT DATASET OVERVIEW

| Attribute | Details |
|---------------|--|
| Years Covered | >= 2013 |
| Total Records | 47,248 |
| Key Fields | Event Year, Aircraft Make/Model, Average Risk Score, Total Fatalities, Location, Weather Condition |

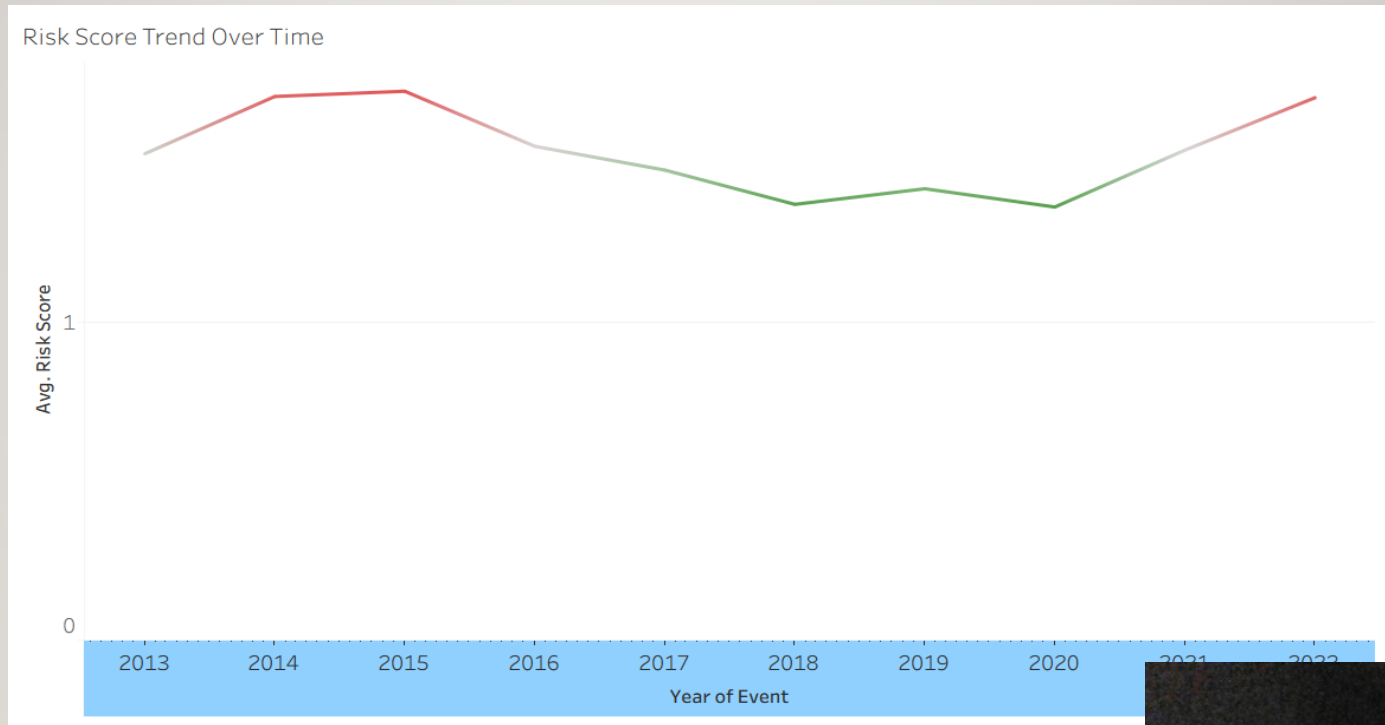
DATA ANALYSIS WORKFLOW

- Data Cleaning
- Exploratory Data Analysis (EDA)
- Risk Scoring
- Visualization
- Recommendations

TOP LOW-RISK AIRCRAFT MODELS



PROJECT EVALUATION AND FUTURE DIRECTIONS



LET'S CONNECT

- Any Questions?
- Contact: Catherine Gachiri
- LinkedIn: [linkedin.com/in/catherine-gachiri](https://www.linkedin.com/in/catherine-gachiri)
- Email: gachiric@gmail.com