

# Data-Driven Air Travel Optimization

SkyOptiFlight seeks to optimize every facet of air travel.



# Introduction

1. Introduction to the Project
2. The Importance of Air Flight Optimization
3. Overview of Data Science in Aviation





# Data-Driven Route Planning

- 1. Route Planning Challenges in Aviation
- 2. Role of Data Science in Optimizing Routes
- 3. Integration of Weather and Air Traffic Data
- 4. Predictive Modeling for Optimal Routes
- 5. Benefits: Reduced Fuel Consumption and Improved Efficiency

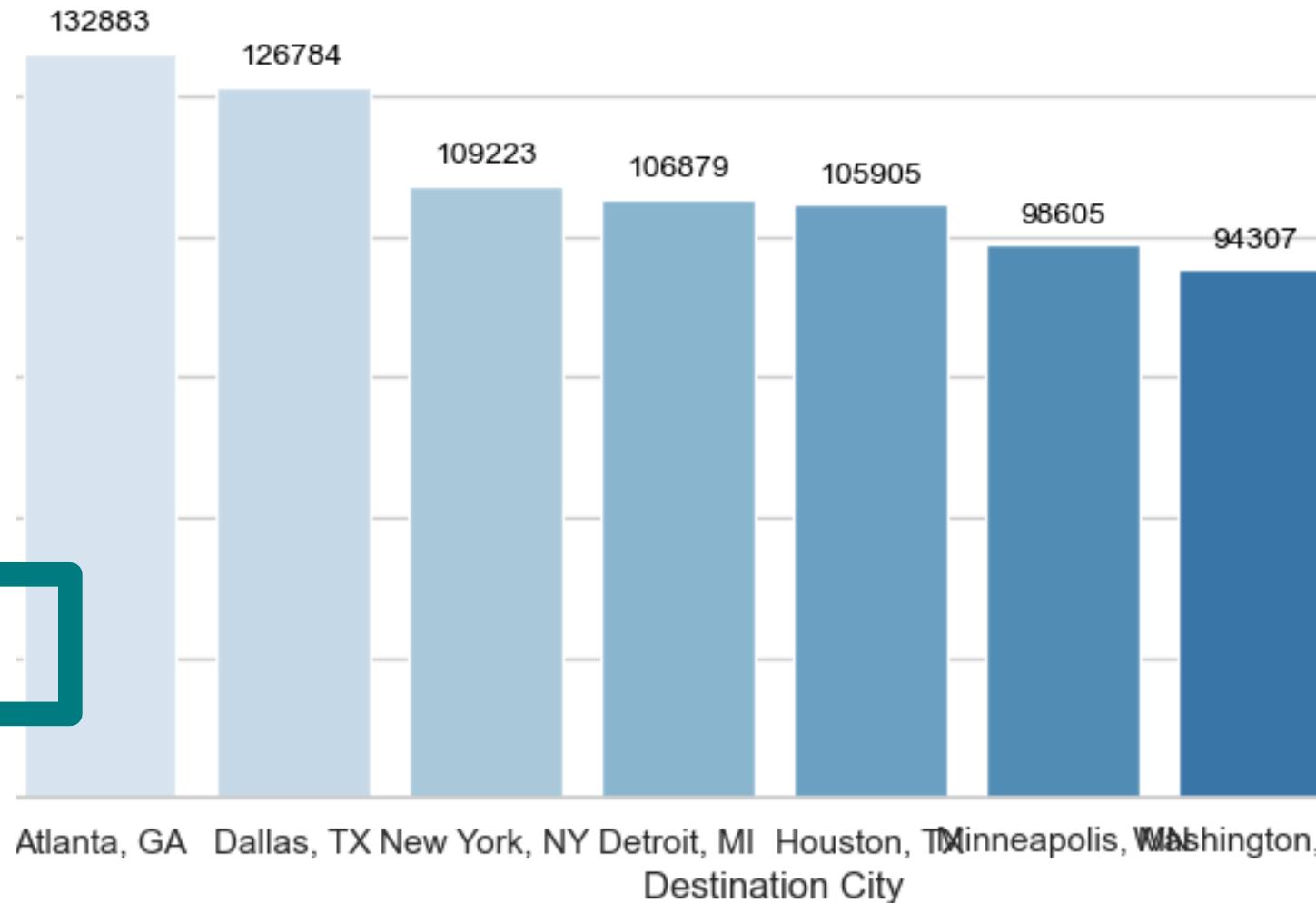
# Data Collection One Million

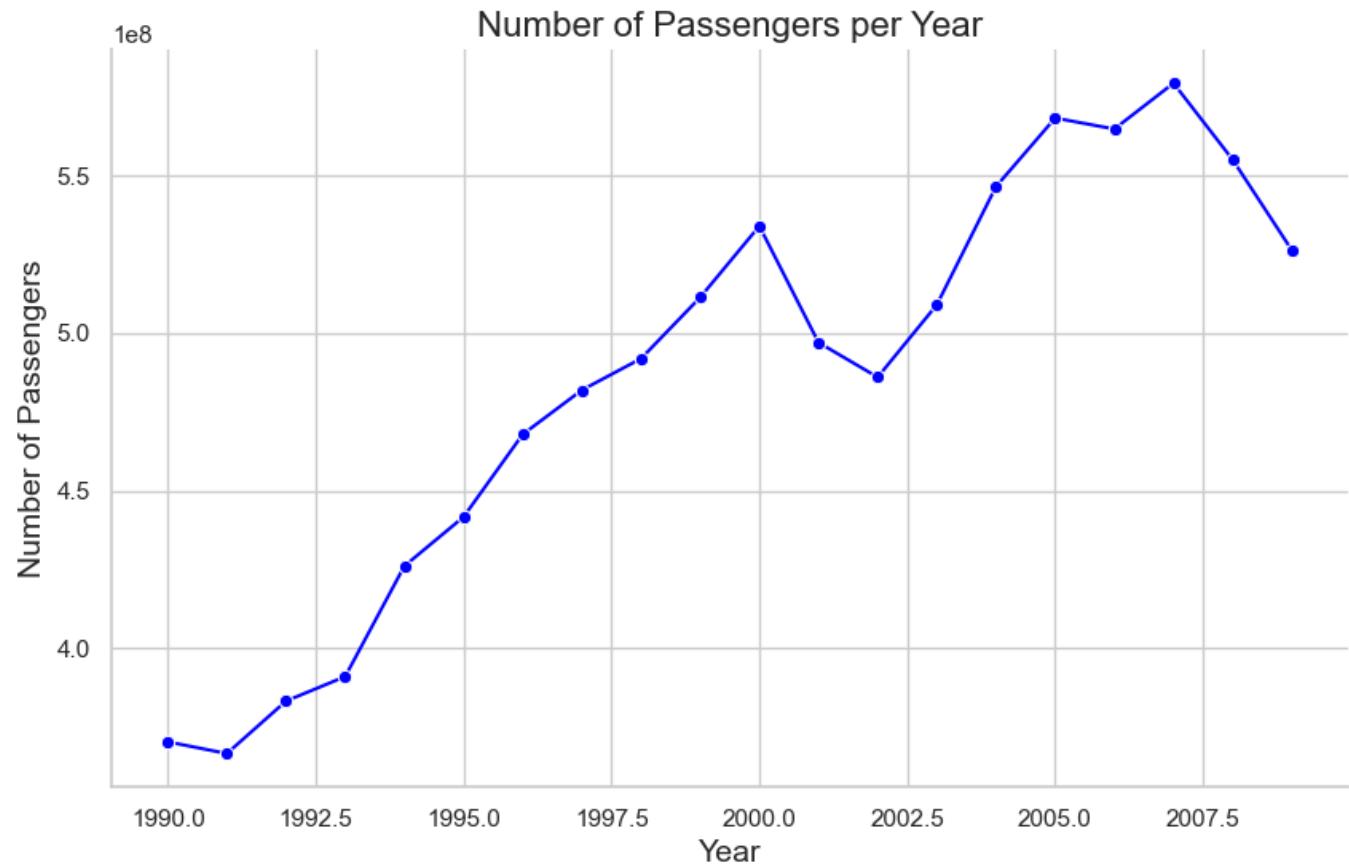
Destination_airport	Origin_city	Destination_city	Passengers	Seats	Flights	Distance	Fly_date
AMW	Manhattan, KS	Ames, IA	21	30	1	254	2008-10-01
RDM	Eugene, OR	Bend, OR	41	396	22	103	1990-11-01
RDM	Eugene, OR	Bend, OR	88	342	19	103	1990-12-01
RDM	Eugene, OR	Bend, OR	11	72	4	103	1990-10-01
RDM	Medford, OR	Bend, OR	0	18	1	156	1990-02-01
RDM	Medford, OR	Bend, OR	11	18	1	156	1990-03-01
RDM	Medford, OR	Bend, OR	2	72	4	156	1990-01-01
RDM	Medford, OR	Bend, OR	7	18	1	156	1990-09-01
RDM	Medford, OR	Bend, OR	7	36	2	156	1990-11-01



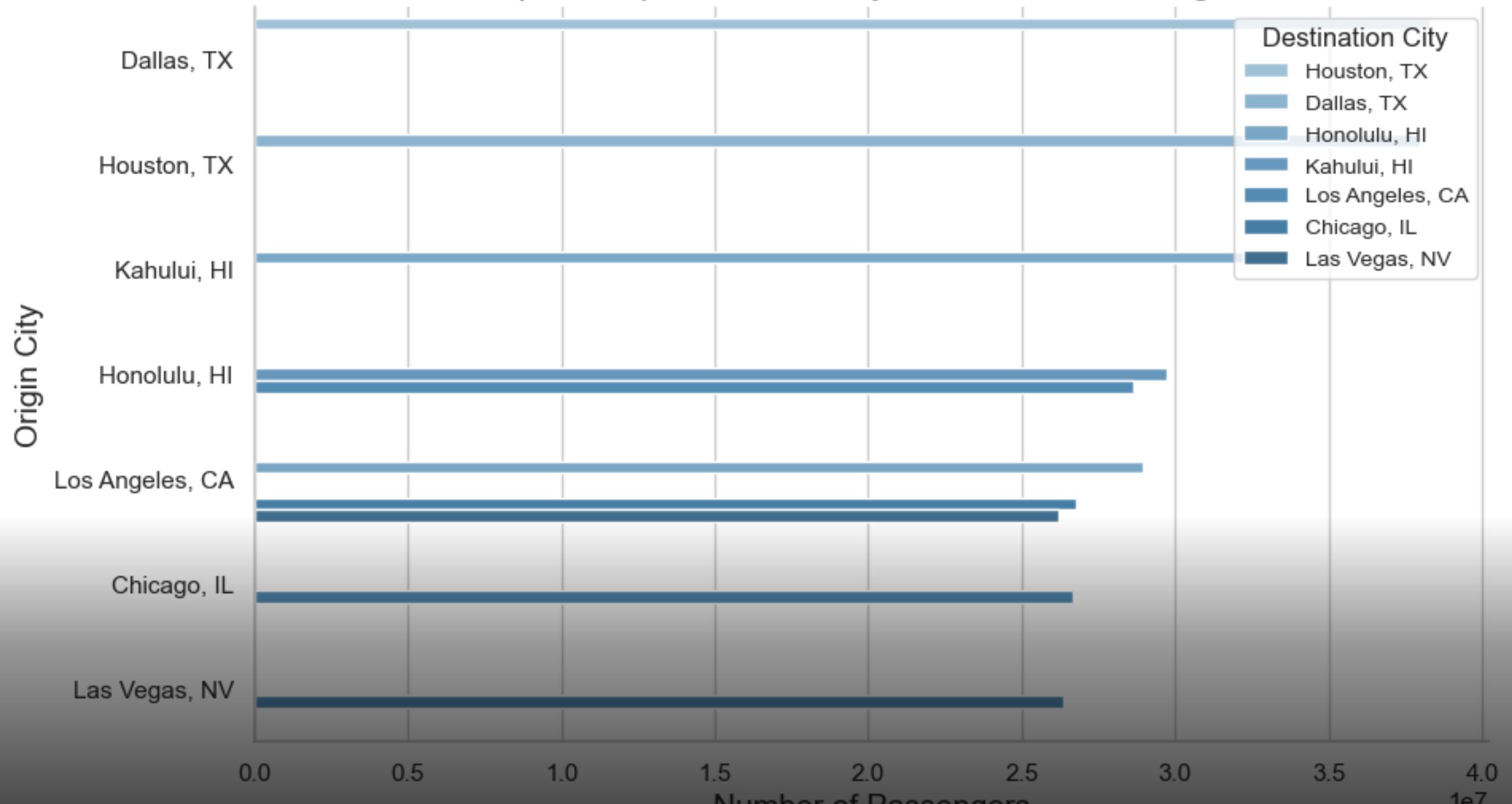
## Top 10 Most Popular City

# TOP 10 Cities

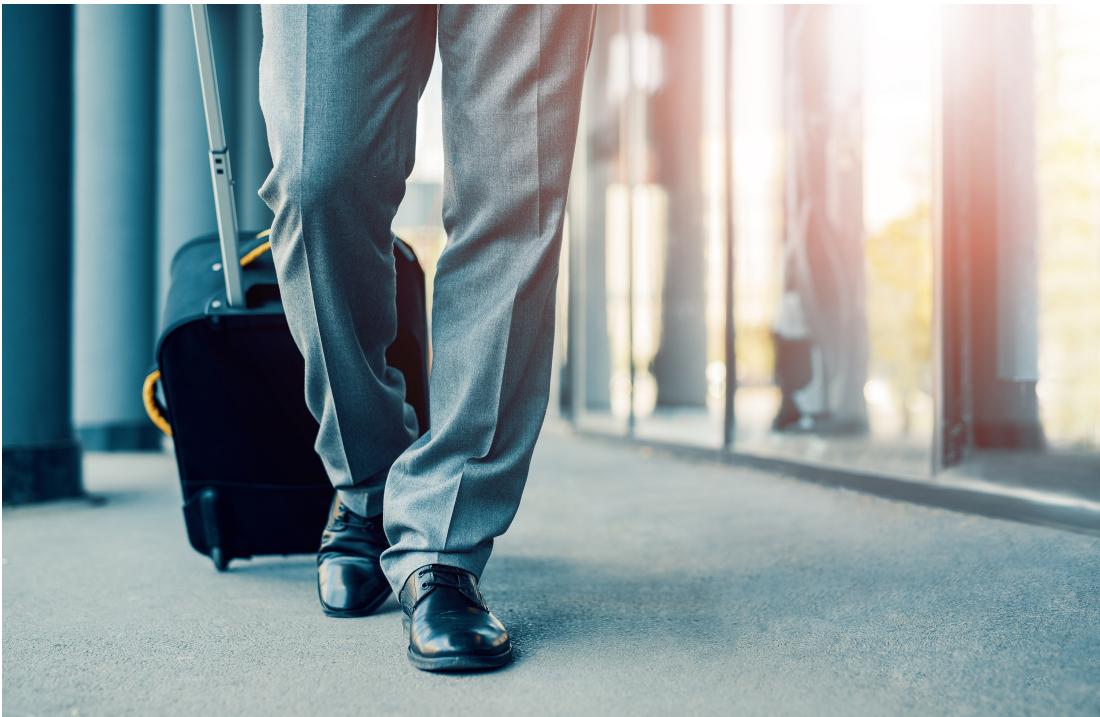




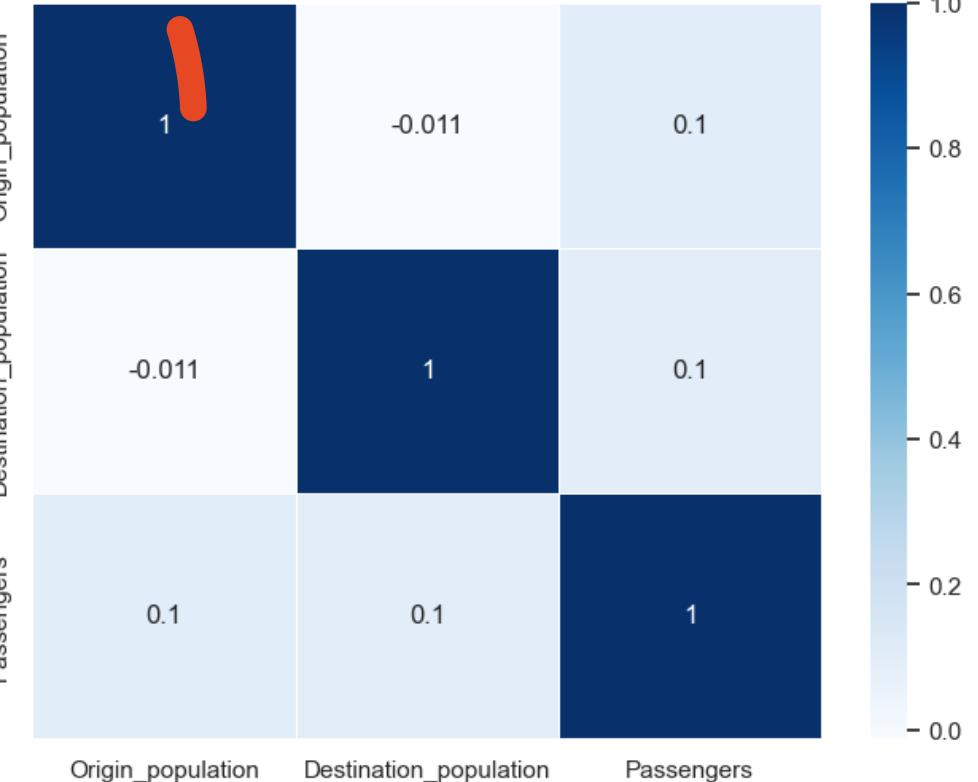
# Top 10 Popular Routes by Number of Passengers



# Correlation



Correlation between Population and Passengers



# Prediction

