

# How to Reactivate Bogotá's Tourism Industry?

Name of the Project: TRIP – CITY

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Entity: Instituto Distrital de Turismo de Bogotá

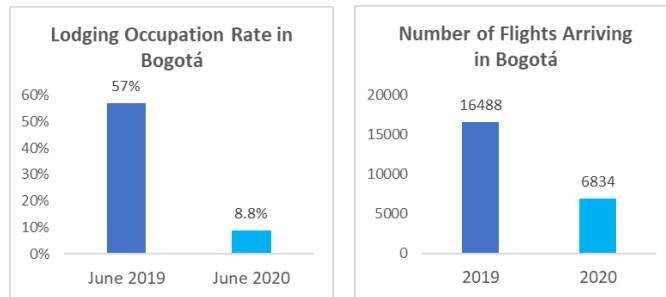


## Product Delivered

- Unified platform for visualization and analysis of information from the tourist industry
- Sentiment Analysis of the tourist attractions reviews, for Public Policy decision taking
- Predictive model of lodging prices for investors

## Context & Background

Tourism has been the most affected economic sector during the Covid-19 Pandemic. In 2019 it represented 3.2% of Bogotá's GDP and generated almost 7% of the employments in the city. Due to the Pandemic in 2020, lodging occupation rates dropped from 57% to 8.8% and the number of flights from 16.500 to less than 7.000



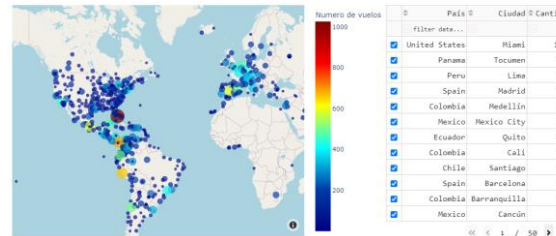
## Data

We received the following data sets from the "Instituto Distrital de Turismo de Bogotá":

- Travelers' information from surveys
- Travelers' profile information
- Tourist indicators
- Flight details from the "Aeronáutica Civil"
- AIRBNB listings for Bogotá
- Data from Trip Advisor for Bogotá's tourist attractions (Web-Scrapping).

## Visualizations and Insights

Visualizations for: Tourist Profile (time and country of origin), Tourist indicators (Economic, tourism competitiveness, International Indicators), Flight connectivity and capacity, Lodging information, and Tourist Attractions. By analyzing the AIRBNB data, we found out that the average occupation rate is 15.8% higher in neighborhoods with tourist attractions.



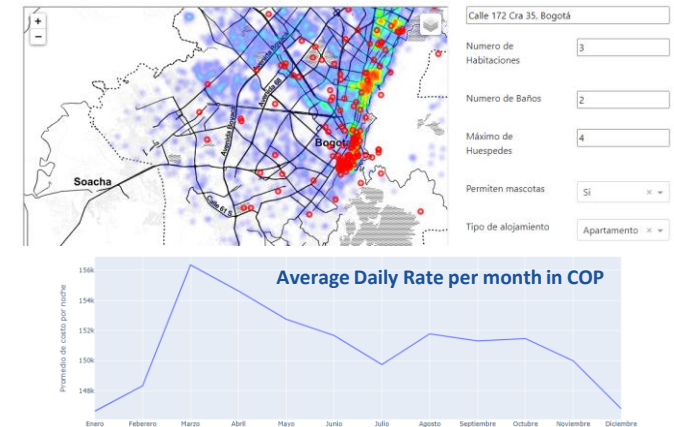
## Sentiment Analysis

Done on reviews from Trip Advisor for 185 tourist attractions in Bogotá, by travelers from all over the world. Allows us to identify the reasons for positive reviews and for negative reviews. Can be filtered by type and location.



## Model

We use a Random Forest model on the Airbnb data, combined with the tourist attractions' locations, to estimate the average daily value per month when renting a property in Airbnb depending on its location and main features. Model's  $R^2 = 0.85$ .



## Why is this important?

Tourism Industry is not only very important to the economy. It also has a great growth potential in Colombia. By using Data Science, we have provided the city with a unified tool to help taking Public Policy decisions to promote this industry. Also, a tool for investors in the lodging business to estimate their income when renting his/her property in Bogotá. Even more, this tool can be replicated to many other tourist entities