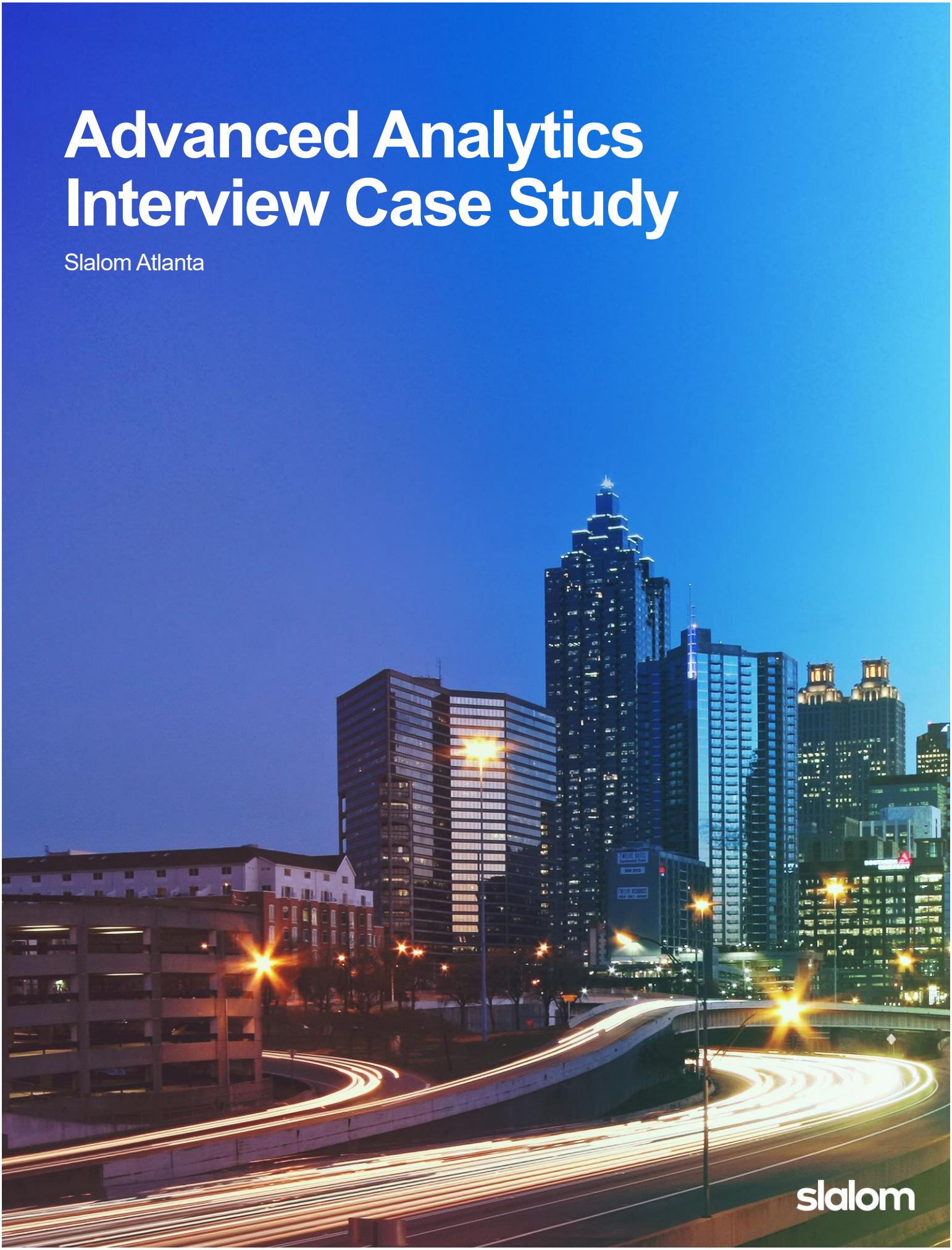
# Advanced Analytics Interview Case Study

Slalom Atlanta



# Case Study

## Business Problem

The executive team of a quick service restaurant is interested in leveraging advanced analytics to gain insight into store performance and revenue drivers. Using only the attached data set, identify the top predictors of hourly sales and predict total sales revenue for all 14 stores on 2017-07-15 during hour 12, assuming a clear day and average temperature of 86 degrees.

Please prepare a short presentation on your methodology and approach, including model(s) utilized, evidence of model validation, and your findings on top predictors as well as the prediction of future sales.

## Data and Guidelines

The purpose of this exercise is to observe your ability to apply data science to a business problem. Prediction accuracy is only a small component of the evaluation, and you are free to choose whichever statistical modeling technique you prefer, as long as you can justify your approach.

The attached data (SalesbyHour.CSV) contains sales performance for 14 stores, aggregated by hour. Further aggregation of the data before modeling is not necessary. The column descriptions are:

1. Store_ID
2. Fiscal_Quarter
3. DateString in YYYYMMDD format
4. DayOfWeek (1 = Monday)
5. Daypart
6. Hourly weather summary
7. Hour of the day
8. Avg Hourly Temperature during this hour at this store
9. Sales Revenue during this hour (**target**)