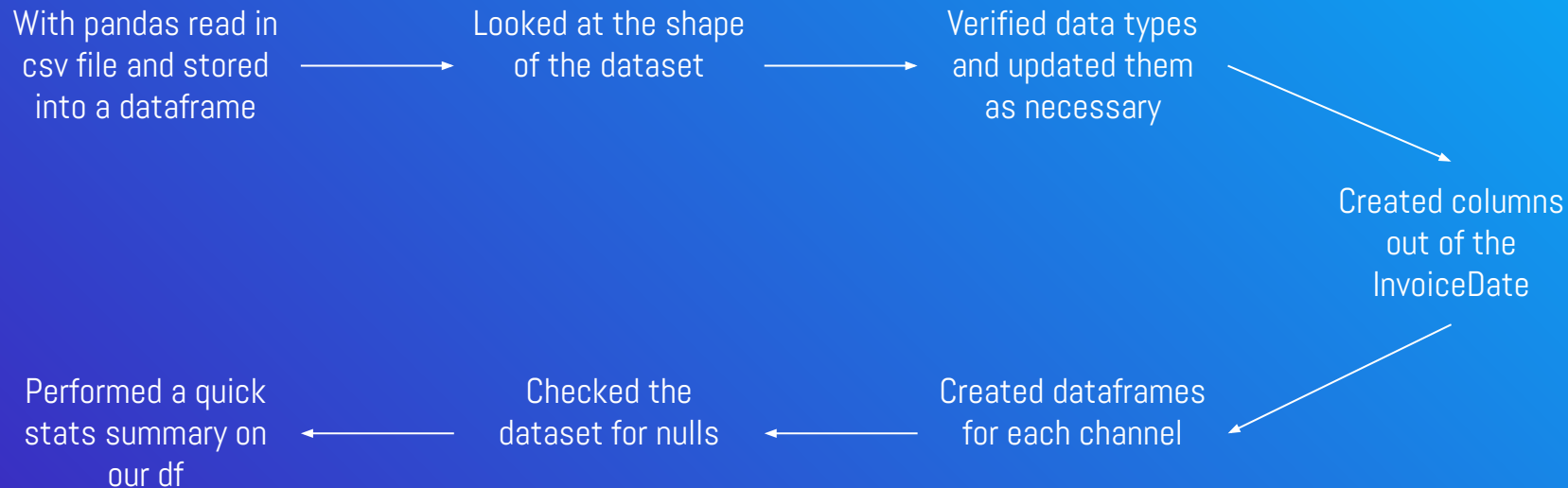


Sales Forecasting & Key Trends

By Yvonne King

Acquire and Prepare our Data



Daily Sales Forecast

Prophet

I chose prophet as it is the modeling tool I am most familiar with for time series forecasting.



Evaluation

I evaluated my forecast by using the root mean squared error as well as r^2 .

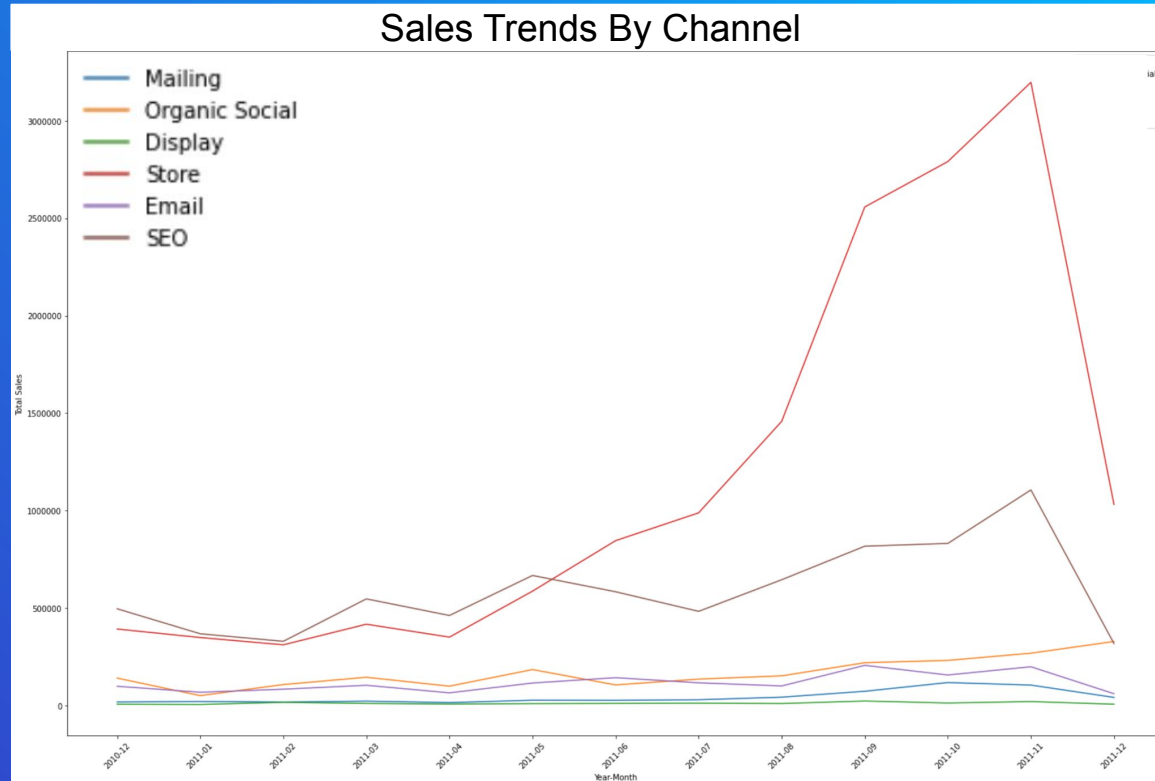


Performance

My models drastically underperformed. The r^2 was consistently under 1

Trends found through EDA

1. When we look at overall sales, we see that the beginning of the year see the lowest sales totals
2. Overall sales start rising in April, peaking in November.
3. Sales drop drastically in December(2011) but this is attributed to data points only through 2011-12-09
4. The store channel is driving sales totals beginning in May.
5. The organic Social channel is the only one that continues to trend upwards in December(2011) despite only have partial data.



What Now?

Recommendations:

- Start promos on Sundays to help drive sales, or create Sunday only promos that should boost revenue, as I found it to have the least sales.
- The Mailing channel sees a sharp decline in sales beginning in October, therefore a cut back on the mail channel should be done until after the holiday season. This will allow focus on the other channels that are thriving during this time.

Given more time:

- Research alternative forecasting tools to provide more accurate forecasts

Thank
You!