Springboard Data Science Intensive

Capstone Project Ideas

Jonathan Calindas

Idea 1:

TDF Member Retention

The Theatre Development Fund maintains a membership program in which members can purchase highly discounted tickets to Broadway, Off Broadway, Dance, and Music Events throughout NYC. Members pay $30 annually to maintain membership. These steep discounts also require that members belong to one of several categories in order to ensure that these discounts go to those in financial need. Categories include teachers, union members, performing artists and retirees.

The aim of this project is to determine what factors contribute to whether a member will renew their membership when it comes due. Variables include:

1. Length of membership (“member since x”)
2. Geography
3. Purchases
4. Demographic info
5. Member category
6. Web activity in member portal

Each member will be given a probability score and this score will be tested against actual renewals to improve the algorithm that calculates this score.

Insights from this exploration will also help TDF to act whenever possible to retain membership.

Idea 2:

TDF Member Purchases

The aim of this project is to assemble a profile for each member to determine the kind of tickets they are most interested in or will most likely purchase. Variables include:

1. Past purchase history.
2. Shows browsed on member portal.
3. Demographic profile
4. Geography

This profile will enable the creation of a customized view that features prominently the shows the member is most likely interested in.

The categories of shows include: Broadway plays, Broadway musicals, Off-Broadway, Off-Off Broadway, Dance, Orchestra/Classical, Jazz, and Pop performances.

Idea 3:

TKTS App Data

The Theatre Development Fund operates the tourist landmark TKTS Booths in NYC that sell half price tickets to Broadway and Off Broadway shows. A mobile app, available on Android and iOS, will show what is available at the booth at any given time, as well as give the users comprehensive information on each show and other shows playing in NYC.

The aim of this project is to determine any correlation between usage of the app and actual tickets sales. Does a general increase in app usage indicate an increase in revenue at the booth? Do increased views of a particular show lead to sales of that show? Does saving the show as “favorite” have any correlation to sales for that show?

Data that will be examined in this study will include:

1. TKTS Sales by date by booth location.
2. TKTS App Logs
3. Climate data
4. Number of shows on Broadway at any given day
5. Number of shows at the booth compared to overall shows playing

Insights from this exploration will assist TDF in forecasting and predicting sales and activity at the booths, and to determine what, if any, activity within the app will predict sales or interest in any given show.