Chicago Taxi Industry Analysis: 2013 –2017
Prediction & Visualization

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TAMIDS Data Science Competition, April 2018

Overview

Predictive Models
- Median Weekly Revenue
- Median Daily Revenue
- Median Hourly Revenue

Visualizations
- Thing 1
- Thing 2
- Thing 3

Median Weekly Revenue

Predictor	Value
TripMiles	0.4902
Tips	4.4989
Extras	5.2294
iDepart	-92.3274
iSnowDepth	118.2571
i2013	378.7097
lyft	-0.6489
iHoliday	-40.0712
i29	-381.9099
i157	-335.2704
i2013*lyft	-8.4967
TripMiles*i2013	-1.3351
Tips*i2013	2.9160
Extras*i2013	-2.2070

Median Weekly Revenue
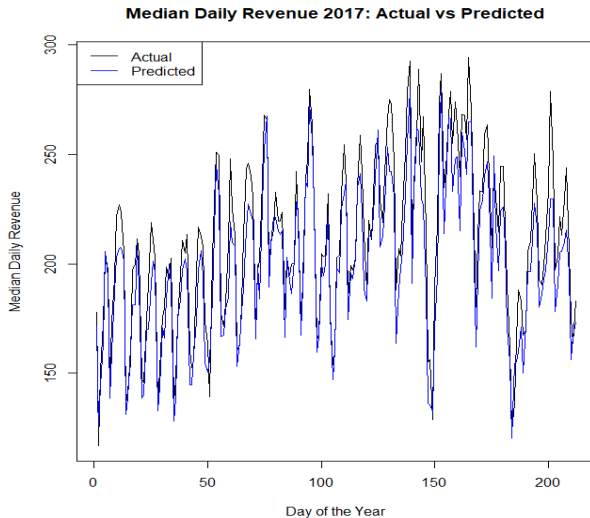

Median Weekly Revenue: Acutal vs Predicted
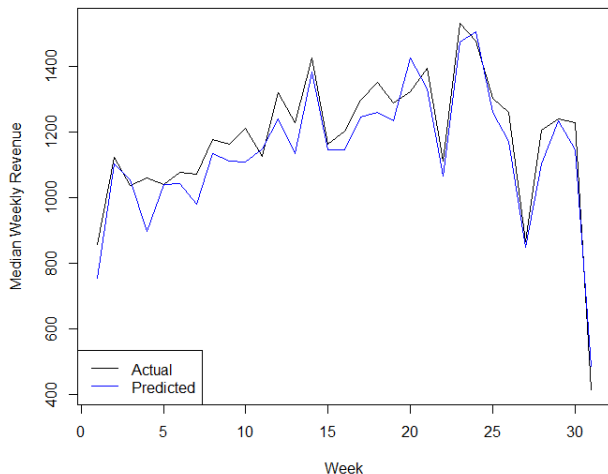
MAE	59.769
RMSE	69.888
MAPE	0.053

Median Daily Revenue

Predictor	Value
Day	0.0023
Day^2	-0.00001
TripSeconds	0.5118
Tips	4.132
iMilesLow	-4.317
stpat [?]	7.431
xmas	-0.410
lyft	-1.080
i2015	-0.9811
iWeekend	1.094
Day:iMilesLow	0.0055

Median Daily Revenue

Median Daily Revenue 2017: Actual vs Predicted

MAE	12.14
RMSE	14.68
MAPE	0.06

Median Hourly Revenue

Predictor	Value
Trip Miles	2.717
Trip Seconds	1.664
Hour of Day	-0.2189
iExtra	1.258
iHalloween	4.414
iLYFT	2.641
Hour of Year	0.0006
(Hour of Year)^2	-7.12e-8
iDayLightSavings	3.545
iCubs	0.847
iEvening	2.279
iLate	-1.115
iSaturdaySunday	-0.7915
iSundayMonday	5.379
iRushHour	-1.204

Median Hourly Revenue

Hourly Median Revenue: Actual vs Predicted

Hourly Median Revenue: Actual vs Predicted

Hourly Median Revenue: Actual vs Predicted
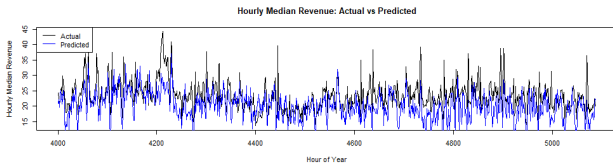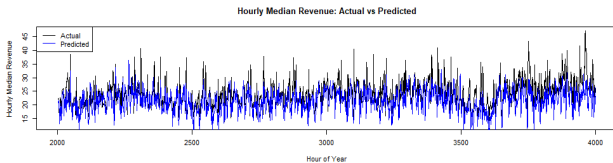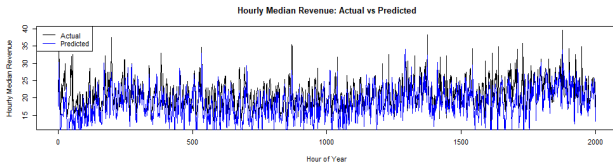
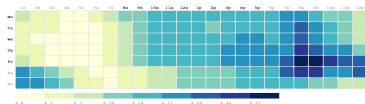| MAE	3.39
RMSE	4.34
MAPE	0.146

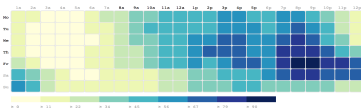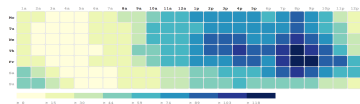# Visualizations: Trip Total
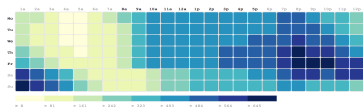
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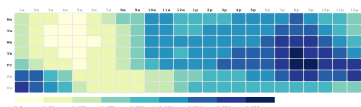
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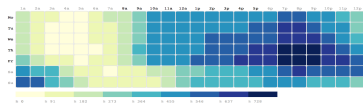
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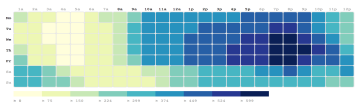
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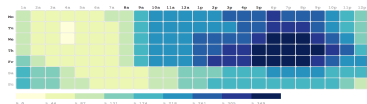
2017

Visualizations: Trip Miles
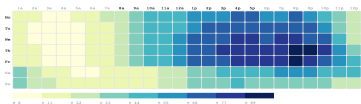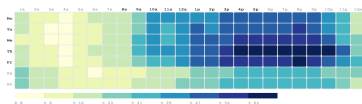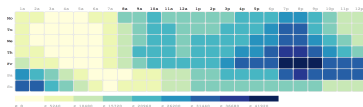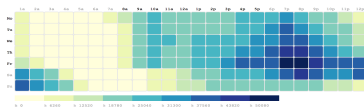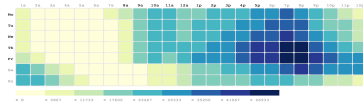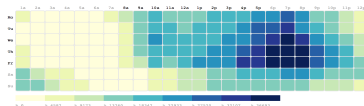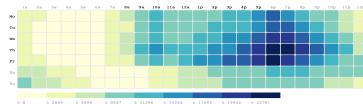

2013

2014

2015

2016

2017

Visualizations

2013

2014

2015

2016

2017

Visualizations