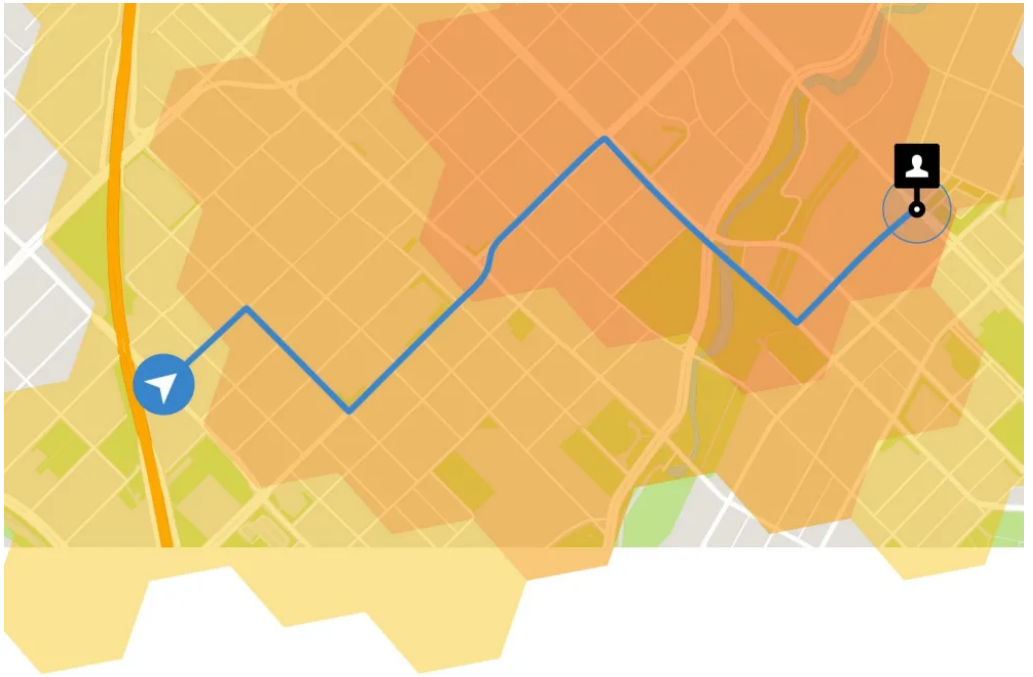
Rideshare Helper

The Next Essential App for Drivers

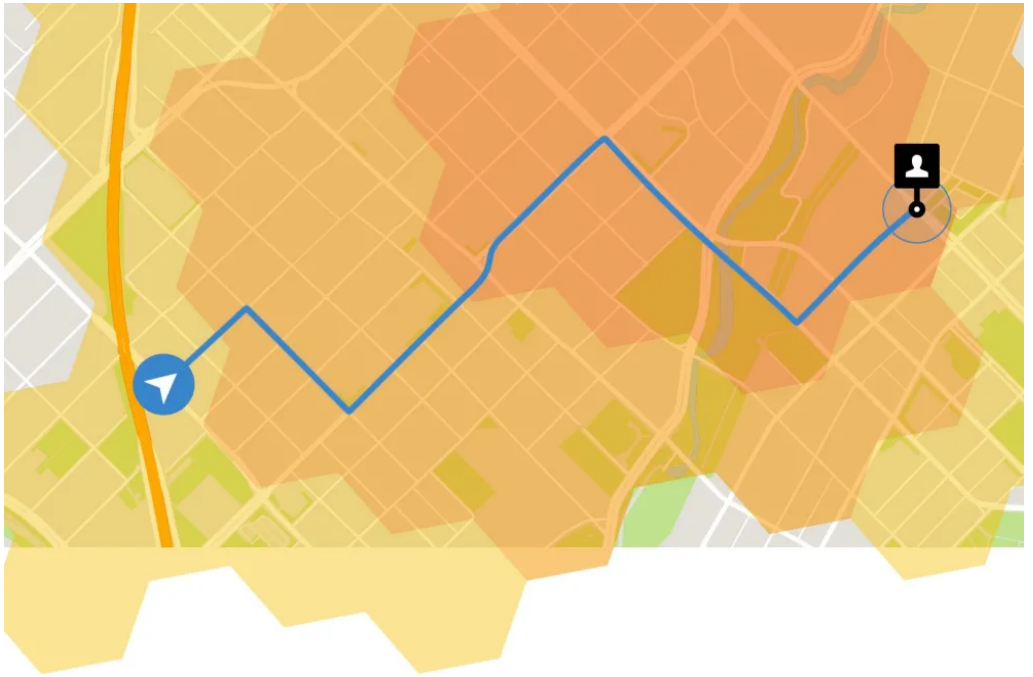
High Demand Pricing

- Uber: Surge
- Lyft: Prime Time



Goal

Predict high demand pricing for drivers



Tools

- **Data**
- City of Chicago
- Rideshare Trips
- Per Capita Income
- Community Areas Map

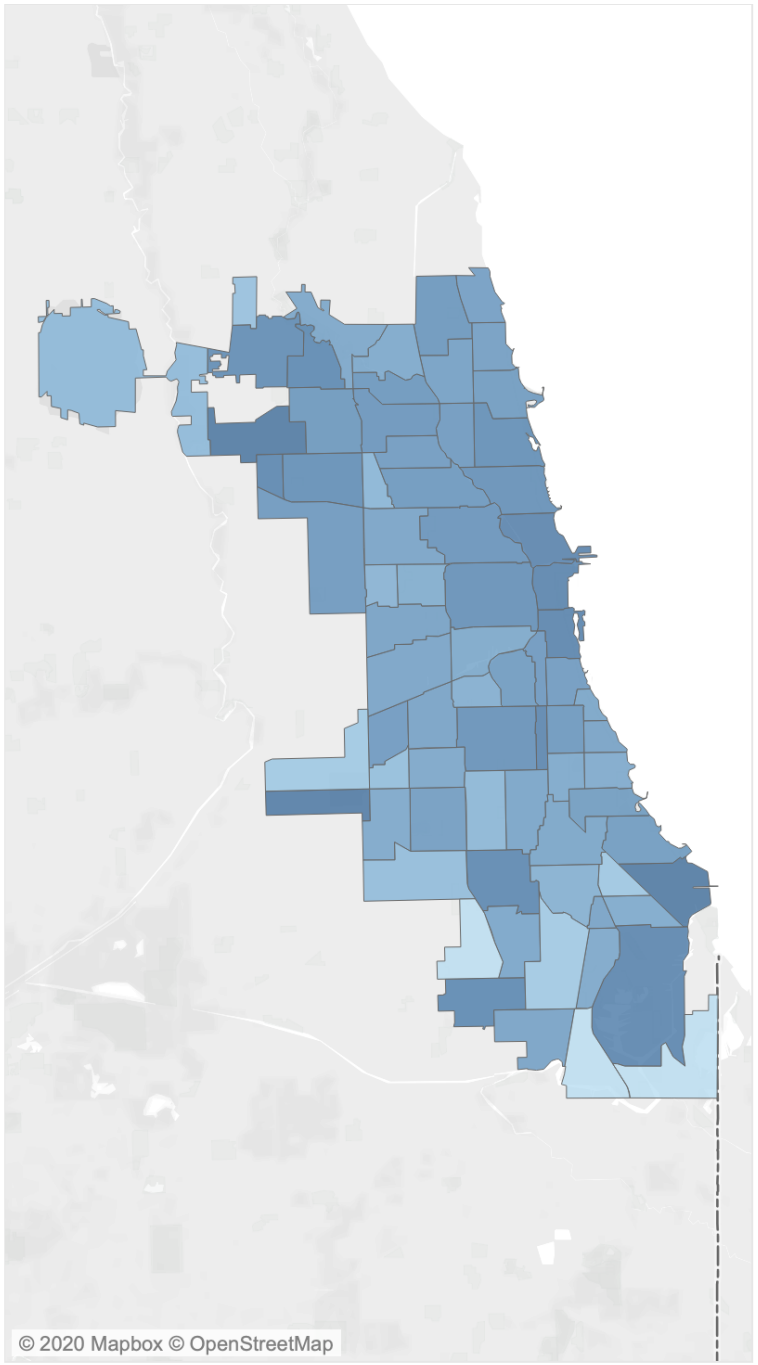
- **Techniques**
- Linear Regression (feature engineering)
- Random Forest Classifier (predictions)

Random Forest Classifier

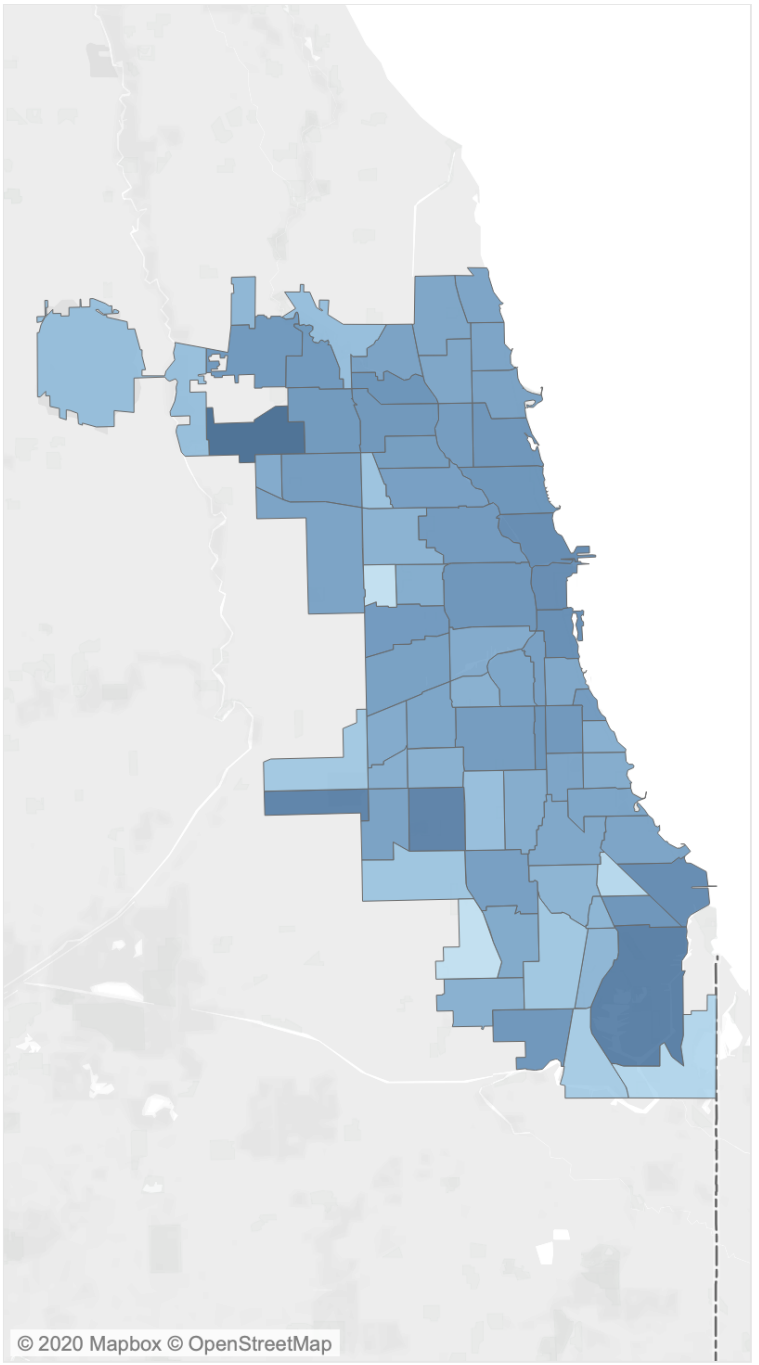
- **Performance**
- 25% precision
- Low recall
- Adequate for use case

- **Important Features**
- Distance from loop
- Per capita income
- 4pm-8pm

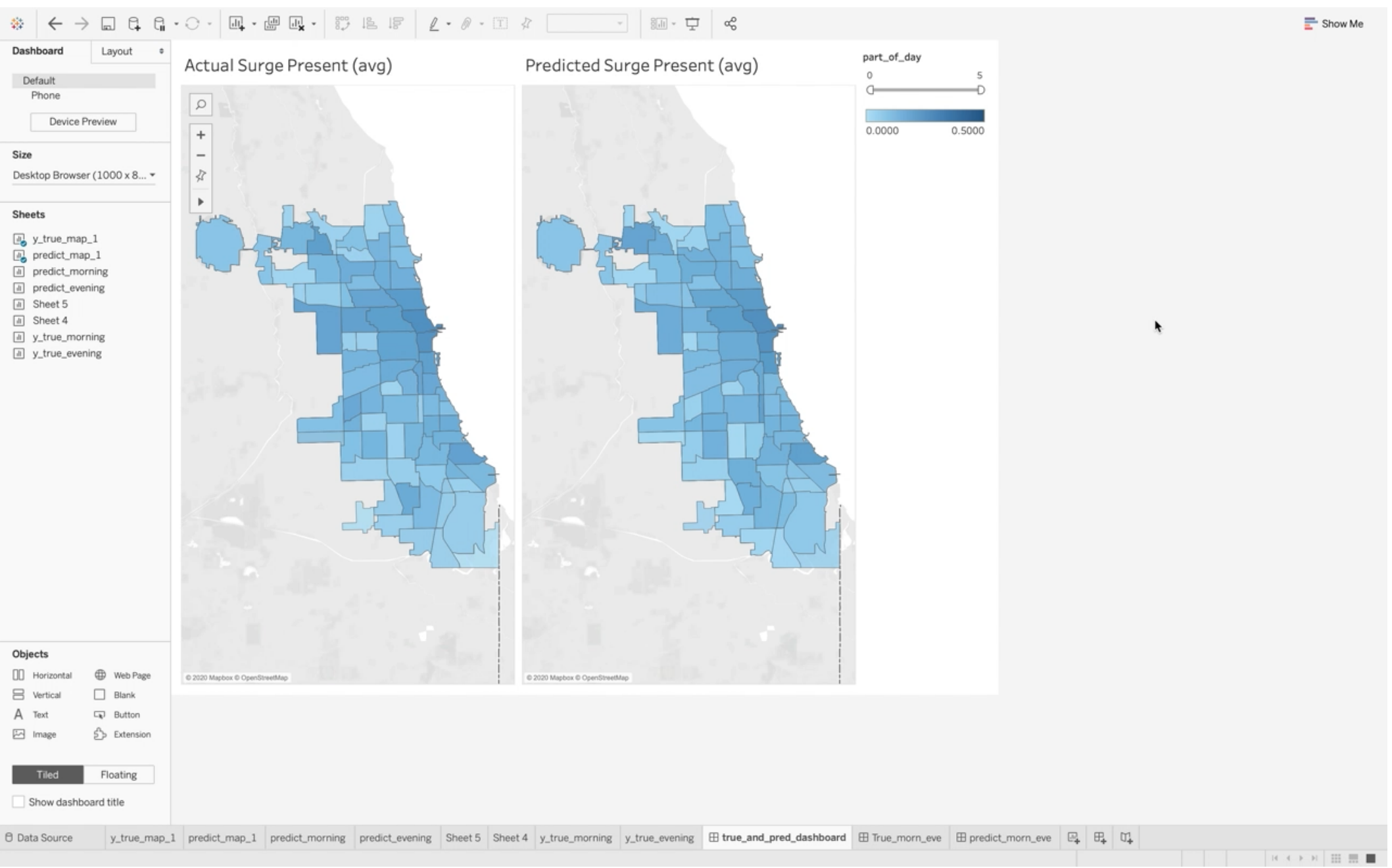
Actual Surge Present (avg)



Predicted Surge Present (avg)



part_of_day
4 to 4


Show Me
Dashboard
Layout
Default
Phone
Device Preview
Size
Desktop Browser (1000 x 8...
Sheets
y_true_map_1
predict_map_1
predict_morning
predict_evening
Sheet 5
Sheet 4
y_true_morning
y_true_evening
Actual Surge Present (avg)
Predicted Surge Present (avg)
part_of_day
0
5
0.0000
0.5000
© 2020 Mapbox © OpenStreetMap
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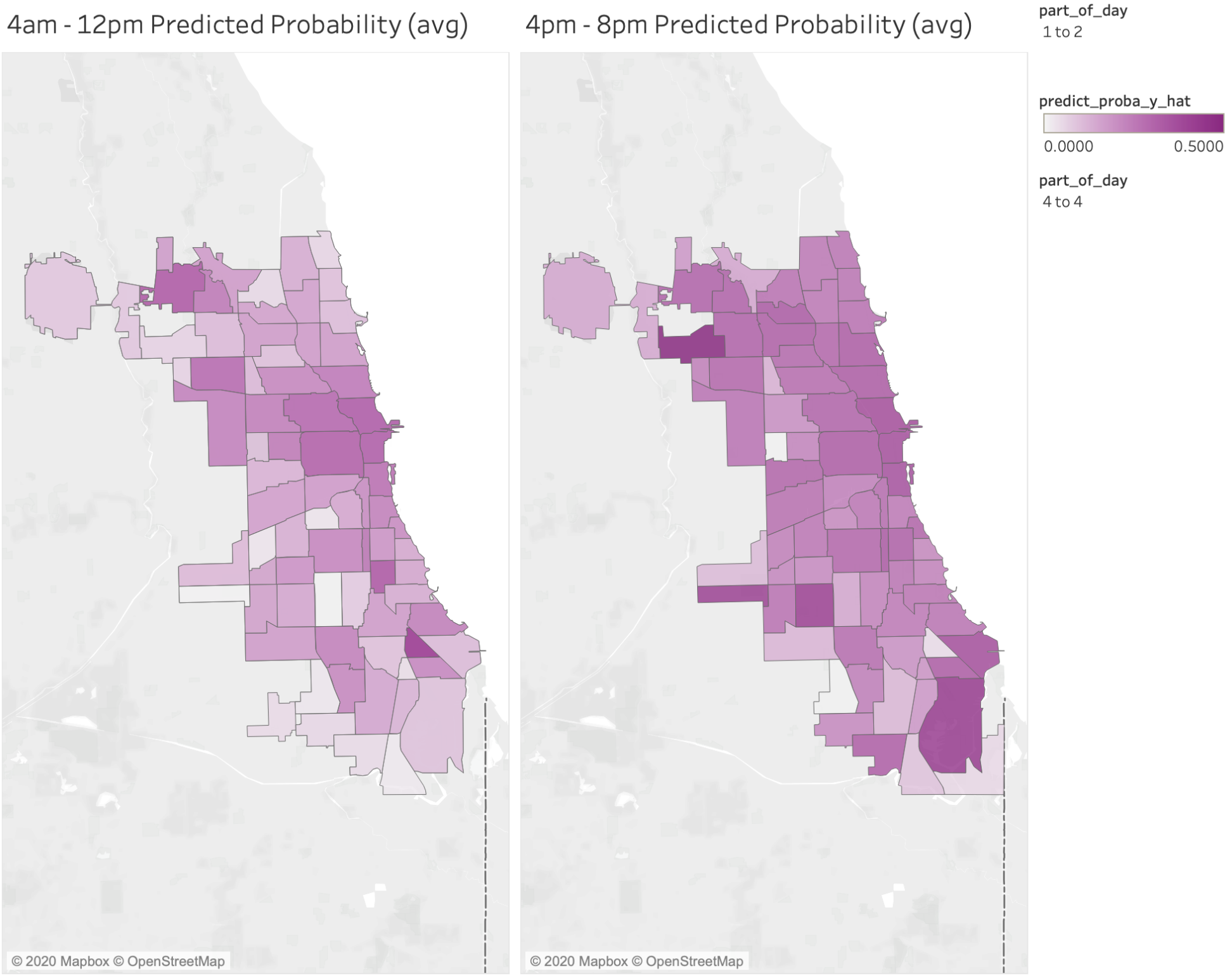
Objects
Horizontal
Web Page
Vertical
Blank
Text
Button
Image
Extension
Tiled
Floating
Show dashboard title
Data Source
y_true_map_1
predict_map_1
predict_morning
predict_evening
Sheet 5
Sheet 4
y_true_morning
y_true_evening
true_and_pred_dashboard
True_morn_eve
predict_morn_eve


4am - 12pm Predicted Probability (avg)
4pm - 8pm Predicted Probability (avg)
part_of_day
1 to 2
predict_proba_y_hat
0.0000
0.5000
part_of_day
4 to 4
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Conclusion

Rideshare Helper’s engine is purring.

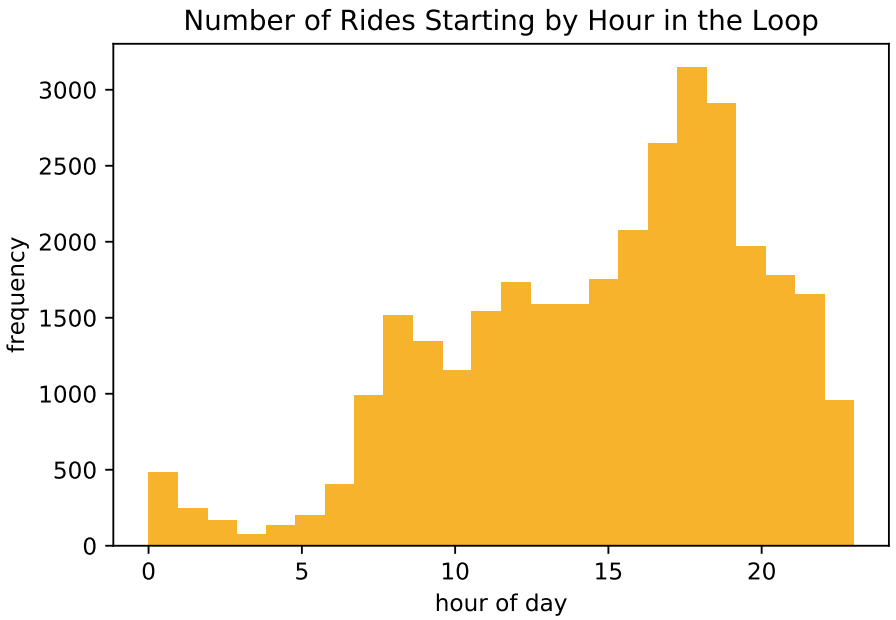
Questions?

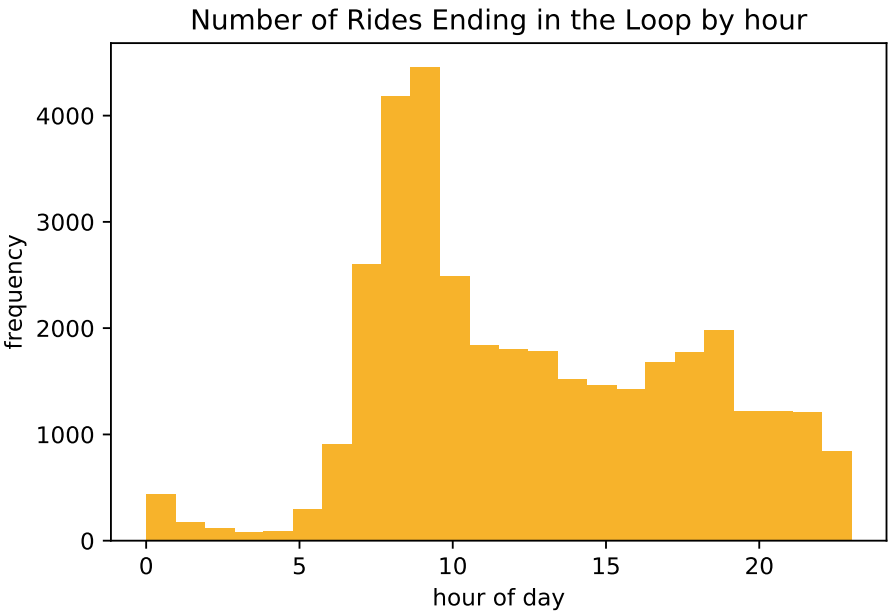
Appendix

Feature Engineering

- Linear model to establish baseline pricing, depending on miles and seconds of trip
- Pricing above a given multiplier of the model's prediction was labeled as high demand pricing

Hourly Patterns: The Loop





Hourly: Near North Side