

SUMMARY

1. WEEKLY REPORT FORECASTING

- Model Used: Facebook Prophet
- Goal: Predict weekly trip counts using past demand and seasonal trends.
- Process: Aggregated weekly trips (2017–2020) and modeled with Prophet.
- Result:
 - Clear weekly seasonality observed.
 - Forecast shows a stable upward trend in future demand.
- Insight: Helps in resource planning and peak week management.



2. HIGH-TIP PREDICTION MODEL

- Model Used: Random Forest Classifier
- Goal: Predict whether a trip will have a tip above average.
- Key Features: Trip distance, fare amount, pickup/drop-off boroughs, time of day.
- Result:
 - Accuracy: 63%
 - Precision: 70% (for low-tip class), 47% (for high-tip class).
 - Important Predictors: Fare amount, distance, pickup time.
- Insight: Identifies scenarios likely to yield higher tips – useful for driver performance optimization.



3. ROUTE-BASED REVENUE FORECASTING

- Model Used: Random Forest Classifier
- Goal: Predict whether a trip will have a tip above average.
- Key Features: Trip distance, fare amount, pickup/drop-off boroughs, time of day.
- Result:
 - Accuracy: 63%
 - Precision: 70% (for low-tip class), 47% (for high-tip class).
 - Important Predictors: Fare amount, distance, pickup time.
- Insight: Identifies scenarios likely to yield higher tips – useful for driver performance optimization.





SUGGESTIONS

1. Optimize Fleet & Drivers

- Deploy more drivers on Fridays & weekends (44% of weekly demand).
- Focus on Manhattan, Queens, Brooklyn (92% of total trips).

2. Boost Revenue

- Promote top routes like East Village → Alphabet City.
- Use dynamic pricing during peak hours (Fri 6 PM).

3. Enhance Customer Experience

- Keep cash payments (40% of transactions).
- Reward drivers on high-tip routes to improve retention.



4. Data-Driven Planning

- Use weekly demand forecasts for better fleet planning.
- Monitor trip distance & borough revenue for trends.

5. Targeted Marketing

- Run local campaigns in high-frequency zones (Harlem, Astoria).
- Consider ride-pooling in high-demand areas.



UBER



Thank you
For Your Attention.

PERSENTED BY- Rahul Lodwal