

# NYC Airbnb Quality Prediction

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# Why?



# Why?

Pre-rate new listings



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Pre-rate new listings

Assist homeowners in optimizing features



# Data

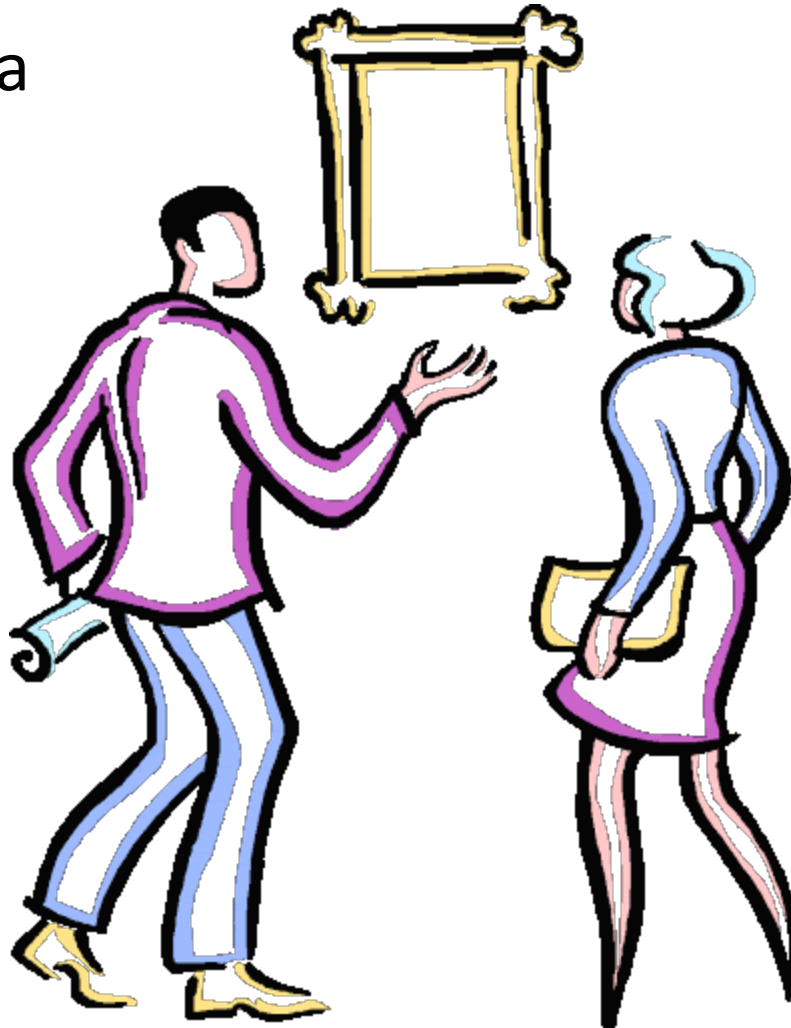
# Data

Airbnb NYC listing data

# Data

Airbnb NYC listing data

NYC open data



# Methods



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Binary classification (High = 9 or 10, Low < 9)

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Random Forest Model

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Binary classification (High = 9 or 10, Low < 9)

Random Forest Model

- Handles diverse data

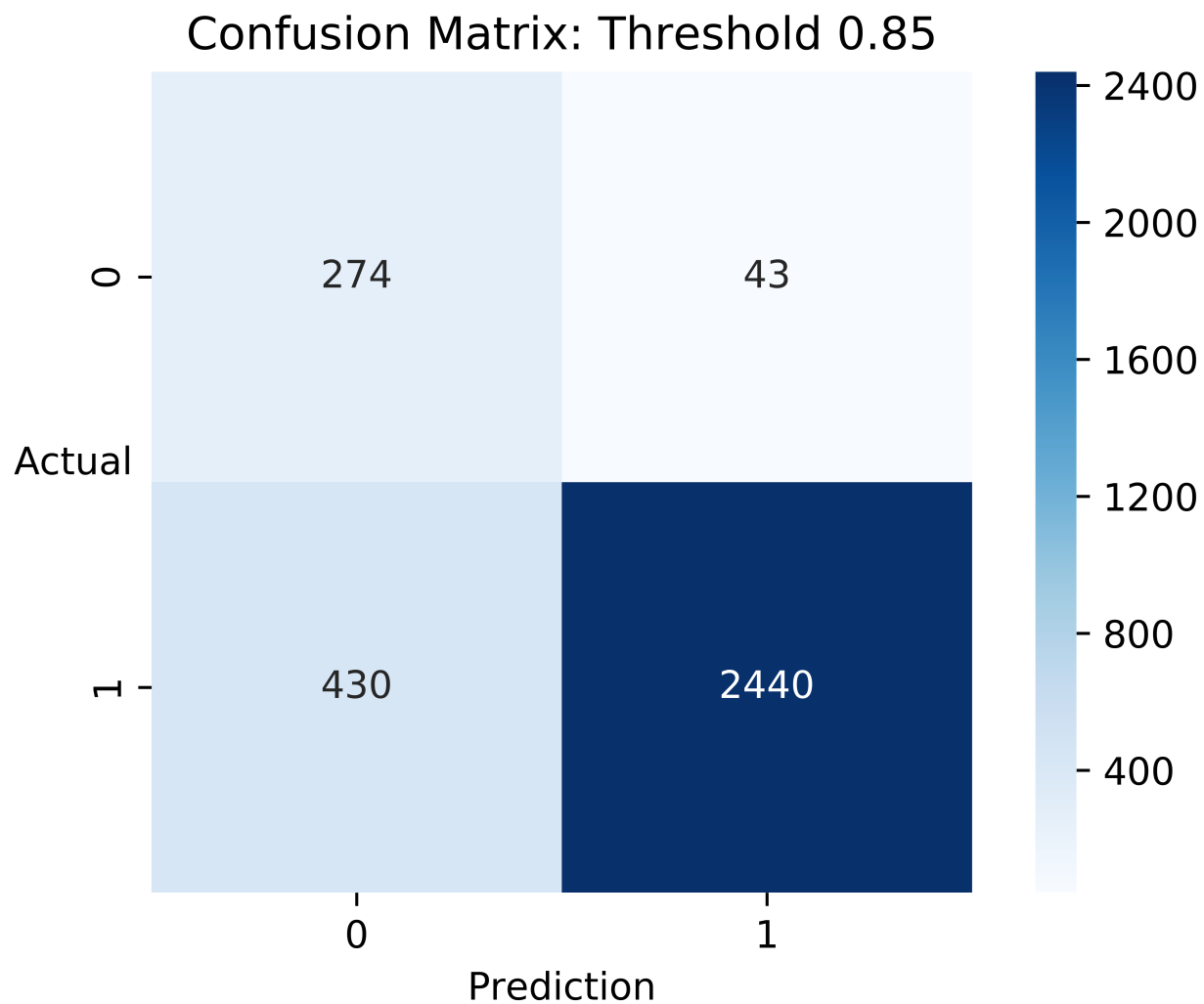
# Methods

Binary classification (High = 9 or 10, Low < 9)

Random Forest Model

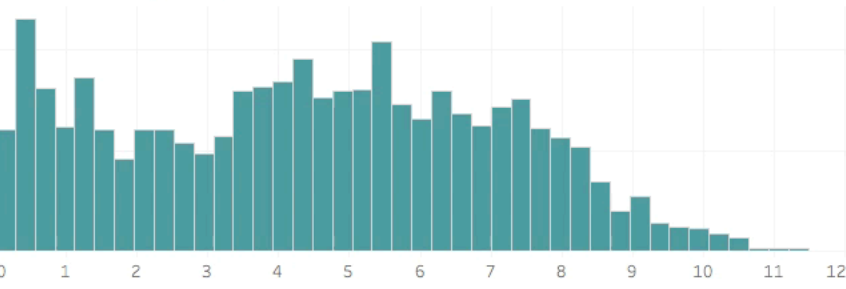
- Handles diverse data
- Relative feature importance

# Results

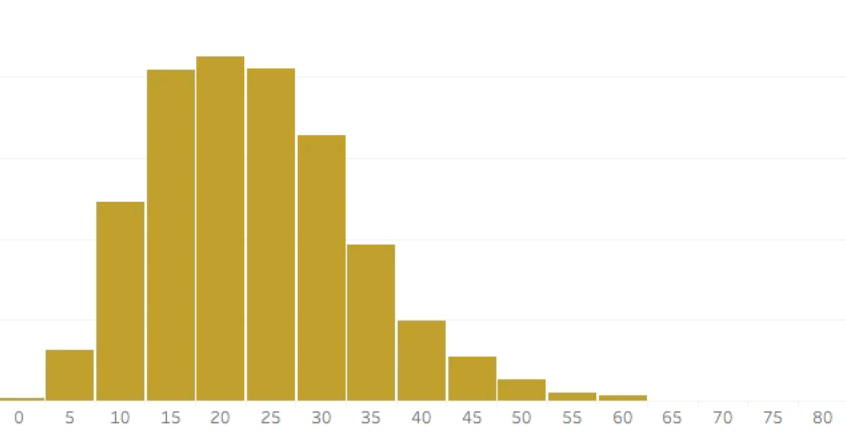


Precision = 0.95

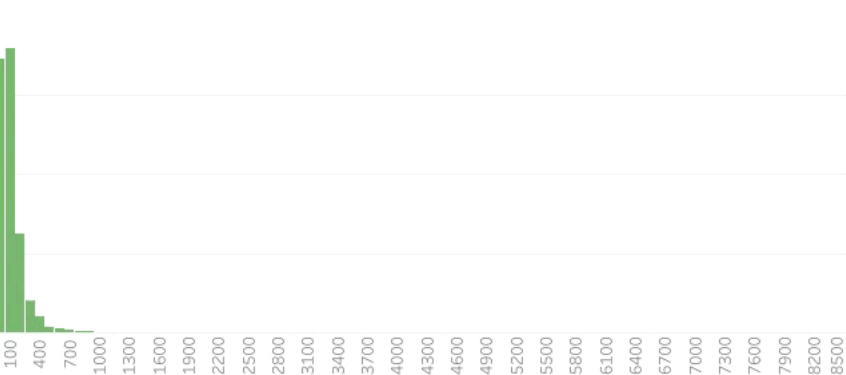
Host Years Histogram



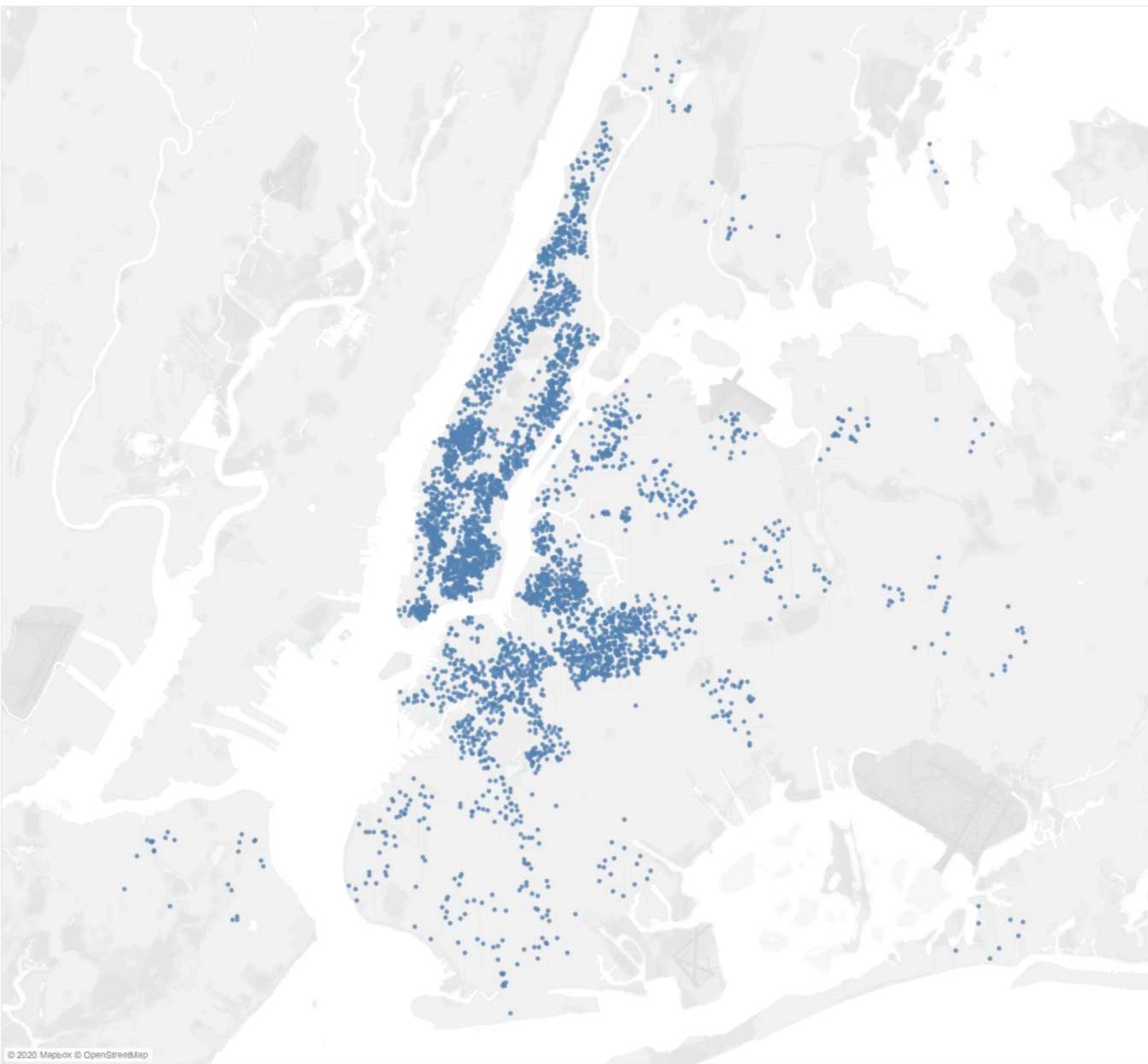
Amenity Count Histogram



Price Histogram



NYC Airbnb Listings



Quality Assurance Level  
0.3021 1.0000

Superhost  
Status

No Yes

Boroughs

Bronx	Abc
Brooklyn	Abc
Manhattan	Abc
Queens	Abc
Staten Island	Abc

Neighborhoods

Astoria	Ab
Bath Beach	Ab
Battery Park City	Ab
Bay Ridge	Ab
Bayside	Ab
Bayswater	Ab
Bedford-Stuyvesant	Ab
Bensonhurst	Ab
Bergen Beach	Ab
Boerum Hill	Ab
Borough Park	Ab
Briarwood	Ab
Brighton Beach	Ab
Brooklyn Heights	Ab
Bushwick	Ab
Carroll Gardens	Ab
Chelsea	Ab
Chinatown	Ab
City Island	Ab
Civic Center	Ab
Clifton	Ab
Clinton Hill	Ab
Cobble Hill	Ab

# Conclusion

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Help Airbnb determine how to recommend new listings



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Help homeowners craft listings to get higher ratings

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Groundwork for more complex models

Thank You!