

A Geospatial Model for Hotel Popularity

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Sounds Logit

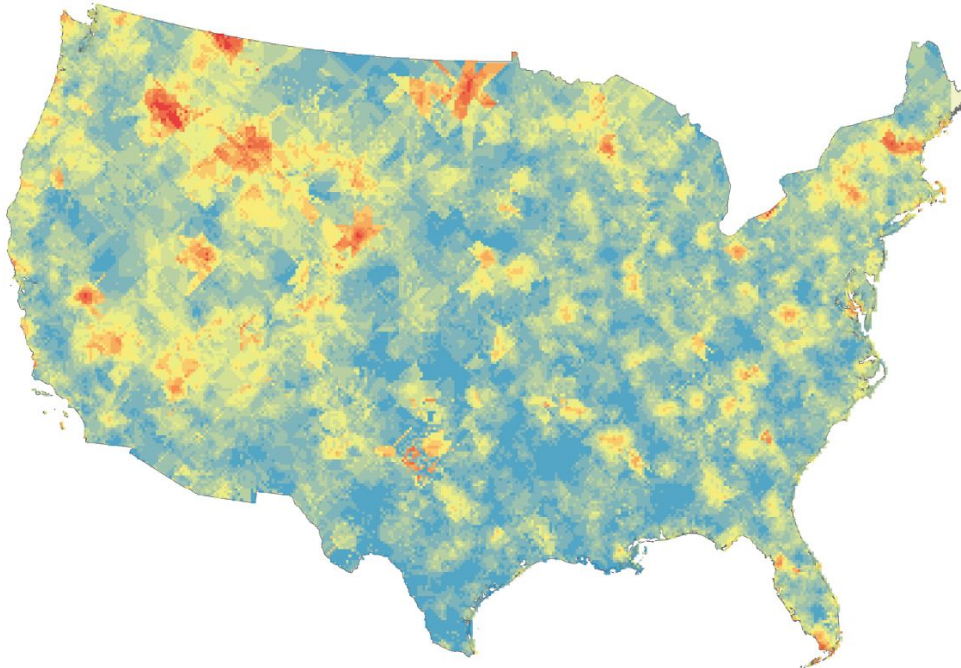
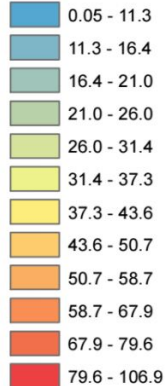


Making better decisions by modeling hotel popularity

Average Time Booked in Advance

Legend

Days Booked Ahead

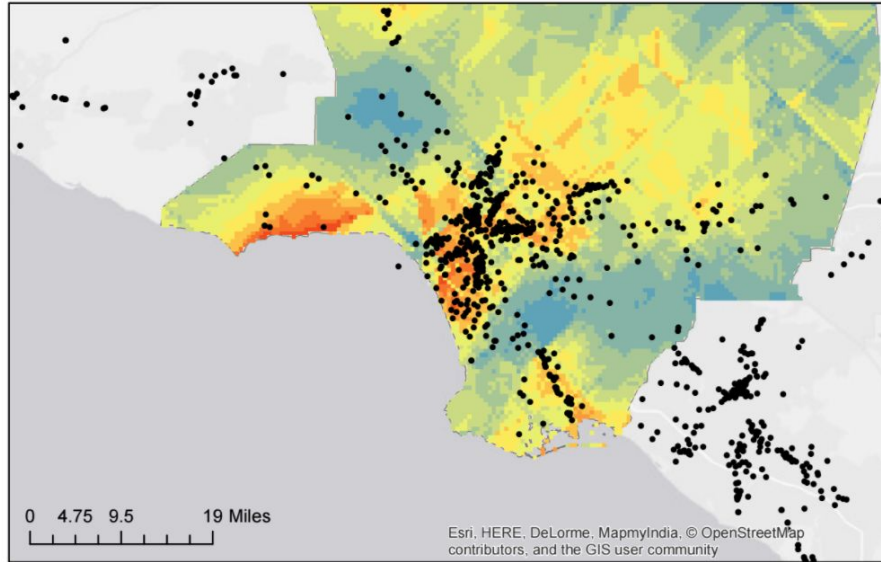


- **70%** of Expedia's hotel revenue is made from the **merchant model**
- Incorporating geospatial information helps Expedia **predict how popular a new hotel will be** before significant usage information arises

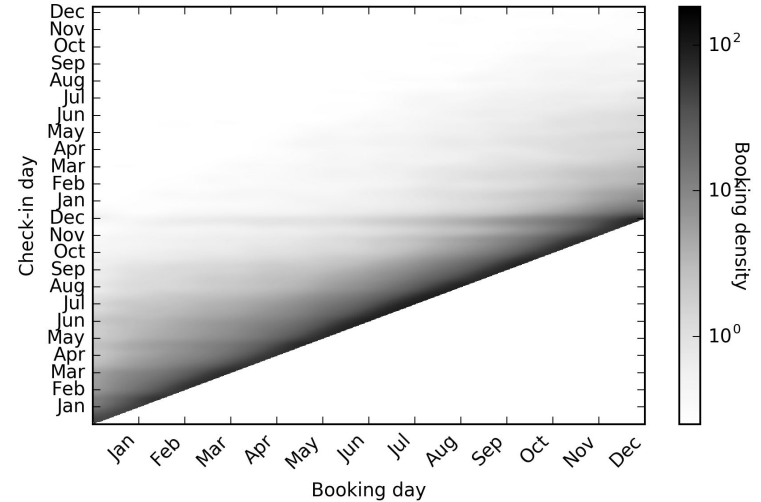


Zooming in

Average Time Booked in Advance (Los Angeles)



Booking Day vs. Check-in Day



Final Modeling:

Geo-Spatial Prediction

Hotel-Specific Variables

xgboost

Final Predictions of Time Booked Ahead

