BOOKING\_BOOL

| **feature** | **importance** |
| --- | --- |
| **0** | srch\_id | 0.037429 |
| **1** | site\_id | 0.007137 |
| **2** | visitor\_location\_country\_id | 0.009862 |
| **3** | prop\_country\_id | 0.007265 |
| **4** | prop\_id | 0.021370 |
| **5** | prop\_starrating | 0.004128 |
| **6** | prop\_review\_score | 0.004837 |
| **7** | prop\_brand\_bool | 0.002674 |
| **8** | prop\_location\_score1 | 0.012920 |
| **9** | prop\_location\_score2 | 0.020450 |
| **10** | prop\_log\_historical\_price | 0.024427 |
| **11** | price\_usd | 0.027611 |
| **12** | promotion\_flag | 0.002847 |
| **13** | srch\_destination\_id | 0.019761 |
| **14** | srch\_length\_of\_stay | 0.012924 |
| **15** | srch\_booking\_window | 0.029660 |
| **16** | srch\_adults\_count | 0.010967 |
| **17** | srch\_children\_count | 0.008820 |
| **18** | srch\_room\_count | 0.004501 |
| **19** | srch\_saturday\_night\_bool | 0.005707 |
| **20** | srch\_query\_affinity\_score | 0.006793 |
| **21** | orig\_destination\_distance | 0.031765 |
| **22** | random\_bool | 0.010534 |
| **23** | star\_diff\_bool | 0.001079 |
| **24** | price\_diff\_bool | 0.000691 |
| **25** | visitor\_hist\_starrating\_filled | 0.009213 |
| **26** | visitor\_hist\_adr\_usd\_filled | 0.003215 |
| **27** | willingness\_to\_pay | 0.001328 |
| **28** | star\_diff\_filled | 0.011936 |
| **29** | price\_diff\_filled | 0.028098 |
| **30** | month | 0.017538 |
| **31** | prop\_review\_score\_norm\_srch\_destination\_id | 0.019477 |
| **32** | price\_usd\_norm\_srch\_id | 0.042717 |
| **33** | srch\_query\_affinity\_bins | 0.003297 |
| **34** | star\_diff\_bins | 0.001671 |
| **35** | price\_diff\_bins | 0.009237 |
| **36** | price\_usd\_norm\_srch\_destination\_id | 0.033343 |
| **37** | prop\_location\_score1\_norm\_srch\_destination\_id | 0.019048 |
| **38** | prop\_location\_score2\_norm\_srch\_destination\_id | 0.020522 |
| **39** | prop\_review\_score\_norm\_srch\_id | 0.033732 |
| **40** | prop\_location\_score1\_norm\_srch\_id | 0.033768 |
| **41** | prop\_location\_score2\_norm\_srch\_id | 0.037262 |
| **42** | prop\_desirability\_incomplete | 0.058029 |
| **43** | position\_estimate | 0.032832 |
| **44** | prop\_location\_score\_combined | 0.019254 |
| **45** | prop\_location\_score\_combined\_norm\_srch\_destina... | 0.019822 |
| **46** | prop\_location\_score\_combined\_norm\_srch\_id | 0.033097 |
| **47** | price\_usd\_norm\_site\_id | 0.028066 |
| **48** | prop\_location\_score1\_norm\_site\_id | 0.017440 |
| **49** | prop\_location\_score2\_norm\_site\_id | 0.022411 |
| **50** | prop\_location\_score\_combined\_norm\_site\_id | 0.021489 |
| **51** | prop\_review\_score\_norm\_site\_id | 0.011912 |
| **52** | avg\_prop\_price\_usd | 0.021236 |
| **53** | avg\_prop\_location\_score1 | 0.012846 |
| **54** | avg\_prop\_location\_score2 | 0.020920 |
| **55** | avg\_prop\_location\_score\_combined | 0.020019 |
| **56** | avg\_prop\_review\_score | 0.004928 |
| **57** | avg\_prop\_starrating | 0.004138 |

Combinations used:

all\_fea:

* srch\_id
* site\_id
* visitor\_location\_country\_id
* prop\_country\_id
* prop\_id
* prop\_starrating
* prop\_review\_score
* prop\_brand\_bool
* prop\_location\_score1
* prop\_location\_score2
* prop\_log\_historical\_price
* price\_usd
* promotion\_flag
* srch\_destination\_id
* srch\_length\_of\_stay
* srch\_booking\_window
* srch\_adults\_count
* srch\_children\_count
* srch\_room\_count
* srch\_saturday\_night\_bool
* srch\_query\_affinity\_score
* orig\_destination\_distance
* random\_bool
* star\_diff\_bool
* price\_diff\_bool
* visitor\_hist\_starrating\_filled
* visitor\_hist\_adr\_usd\_filled
* willingness\_to\_pay
* star\_diff\_filled
* price\_diff\_filled
* month
* prop\_review\_score\_norm\_srch\_destination\_id
* price\_usd\_norm\_srch\_id
* srch\_query\_affinity\_bins
* star\_diff\_bins
* price\_diff\_bins
* price\_usd\_norm\_srch\_destination\_id
* prop\_location\_score1\_norm\_srch\_destination\_id
* prop\_location\_score2\_norm\_srch\_destination\_id
* prop\_review\_score\_norm\_srch\_id
* prop\_location\_score1\_norm\_srch\_id
* prop\_location\_score2\_norm\_srch\_id
* prop\_desirability\_incomplete
* position\_estimate
* prop\_location\_score\_combined
* prop\_location\_score\_combined\_norm\_srch\_destination\_id
* prop\_location\_score\_combined\_norm\_srch\_id
* price\_usd\_norm\_site\_id
* prop\_location\_score1\_norm\_site\_id
* prop\_location\_score2\_norm\_site\_id
* prop\_location\_score\_combined\_norm\_site\_id
* prop\_review\_score\_norm\_site\_id
* avg\_prop\_price\_usd
* avg\_prop\_location\_score1
* avg\_prop\_location\_score2
* avg\_prop\_location\_score\_combined
* avg\_prop\_review\_score
* avg\_prop\_starrating

> 0.01

* srch\_id
* prop\_id
* prop\_location\_score1
* prop\_location\_score2
* prop\_log\_historical\_price
* price\_usd
* srch\_destination\_id
* srch\_length\_of\_stay
* srch\_booking\_window
* srch\_adults\_count
* orig\_destination\_distance
* random\_bool
* star\_diff\_filled
* price\_diff\_filled
* month
* prop\_review\_score\_norm\_srch\_destination\_id
* price\_usd\_norm\_srch\_id
* price\_usd\_norm\_srch\_destination\_id
* prop\_location\_score1\_norm\_srch\_destination\_id
* prop\_location\_score2\_norm\_srch\_destination\_id
* prop\_review\_score\_norm\_srch\_id
* prop\_location\_score1\_norm\_srch\_id
* prop\_location\_score2\_norm\_srch\_id
* prop\_desirability\_incomplete
* position\_estimate
* prop\_location\_score\_combined
* prop\_location\_score\_combined\_norm\_srch\_destination\_id
* prop\_location\_score\_combined\_norm\_srch\_id
* price\_usd\_norm\_site\_id
* prop\_location\_score1\_norm\_site\_id
* prop\_location\_score2\_norm\_site\_id
* prop\_location\_score\_combined\_norm\_site\_id
* prop\_review\_score\_norm\_site\_id
* avg\_prop\_price\_usd
* avg\_prop\_location\_score1
* avg\_prop\_location\_score2
* avg\_prop\_location\_score\_combined

> 0.02

* srch\_id
* prop\_id
* prop\_location\_score2
* prop\_log\_historical\_price
* price\_usd
* srch\_booking\_window
* orig\_destination\_distance
* price\_diff\_filled
* price\_usd\_norm\_srch\_id
* price\_usd\_norm\_srch\_destination\_id
* prop\_location\_score2\_norm\_srch\_destination\_id
* prop\_review\_score\_norm\_srch\_id
* prop\_location\_score1\_norm\_srch\_id
* prop\_location\_score2\_norm\_srch\_id
* prop\_desirability\_incomplete
* position\_estimate
* prop\_location\_score\_combined\_norm\_srch\_id
* price\_usd\_norm\_site\_id
* prop\_location\_score2\_norm\_site\_id
* prop\_location\_score\_combined\_norm\_site\_id
* avg\_prop\_price\_usd
* avg\_prop\_location\_score2
* avg\_prop\_location\_score\_combined

> 0.03

* srch\_id
* orig\_destination\_distance
* price\_usd\_norm\_srch\_id
* price\_usd\_norm\_srch\_destination\_id
* prop\_review\_score\_norm\_srch\_id
* prop\_location\_score1\_norm\_srch\_id
* prop\_location\_score2\_norm\_srch\_id
* prop\_desirability\_incomplete
* position\_estimate
* prop\_location\_score\_combined\_norm\_srch\_id

> 0.025

* srch\_id
* orig\_destination\_distance
* price\_usd\_norm\_srch\_id
* price\_usd\_norm\_site\_id
* price\_diff\_filled
* srch\_booking\_window
* price\_usd\_norm\_srch\_destination\_id
* prop\_review\_score\_norm\_srch\_id
* prop\_location\_score1\_norm\_srch\_id
* prop\_location\_score2\_norm\_srch\_id
* prop\_desirability\_incomplete
* position\_estimate
* prop\_location\_score\_combined\_norm\_srch\_id

> 0.023

* srch\_id
* orig\_destination\_distance
* price\_usd\_norm\_srch\_id
* price\_usd\_norm\_site\_id
* price\_diff\_filled
* srch\_booking\_window
* price\_usd\_norm\_srch\_destination\_id
* prop\_review\_score\_norm\_srch\_id
* prop\_location\_score1\_norm\_srch\_id
* prop\_location\_score2\_norm\_srch\_id
* prop\_desirability\_incomplete
* position\_estimate
* prop\_location\_score\_combined\_norm\_srch\_id
* prop\_loc\_historical\_price

max4

* prop\_desirability\_incomplete
* price\_usd\_norm\_srch\_id
* srch\_id
* prop\_location\_score2\_norm\_srch\_id

4max#2

* prop\_desirability\_incomplete
* price\_usd\_norm\_srch\_id
* srch\_id
* prop\_location\_score2\_norm\_srch\_id