CLICK\_BOOL

| **feature** | **importance** |
| --- | --- |
| **0** | srch\_id | 0.038840 |
| **1** | site\_id | 0.007614 |
| **2** | visitor\_location\_country\_id | 0.010461 |
| **3** | prop\_country\_id | 0.007746 |
| **4** | prop\_id | 0.021556 |
| **5** | prop\_starrating | 0.003638 |
| **6** | prop\_review\_score | 0.005003 |
| **7** | prop\_brand\_bool | 0.002754 |
| **8** | prop\_location\_score1 | 0.013121 |
| **9** | prop\_location\_score2 | 0.020436 |
| **10** | prop\_log\_historical\_price | 0.025067 |
| **11** | price\_usd | 0.028502 |
| **12** | promotion\_flag | 0.002963 |
| **13** | srch\_destination\_id | 0.019988 |
| **14** | srch\_length\_of\_stay | 0.015206 |
| **15** | srch\_booking\_window | 0.031648 |
| **16** | srch\_adults\_count | 0.011269 |
| **17** | srch\_children\_count | 0.009107 |
| **18** | srch\_room\_count | 0.004524 |
| **19** | srch\_saturday\_night\_bool | 0.005856 |
| **20** | srch\_query\_affinity\_score | 0.006010 |
| **21** | orig\_destination\_distance | 0.032417 |
| **22** | random\_bool | 0.004970 |
| **23** | star\_diff\_bool | 0.000911 |
| **24** | price\_diff\_bool | 0.000651 |
| **25** | visitor\_hist\_starrating\_filled | 0.009165 |
| **26** | visitor\_hist\_adr\_usd\_filled | 0.002704 |
| **27** | willingness\_to\_pay | 0.001380 |
| **28** | star\_diff\_filled | 0.011723 |
| **29** | price\_diff\_filled | 0.028500 |
| **30** | month | 0.018143 |
| **31** | prop\_review\_score\_norm\_srch\_destination\_id | 0.019397 |
| **32** | price\_usd\_norm\_srch\_id | 0.043941 |
| **33** | srch\_query\_affinity\_bins | 0.002897 |
| **34** | star\_diff\_bins | 0.001611 |
| **35** | price\_diff\_bins | 0.009412 |
| **36** | price\_usd\_norm\_srch\_destination\_id | 0.034578 |
| **37** | prop\_location\_score1\_norm\_srch\_destination\_id | 0.019276 |
| **38** | prop\_location\_score2\_norm\_srch\_destination\_id | 0.020648 |
| **39** | prop\_review\_score\_norm\_srch\_id | 0.034354 |
| **40** | prop\_location\_score1\_norm\_srch\_id | 0.034664 |
| **41** | prop\_location\_score2\_norm\_srch\_id | 0.037834 |
| **42** | prop\_desirability\_incomplete | 0.044744 |
| **43** | position\_estimate | 0.032960 |
| **44** | prop\_location\_score\_combined | 0.019511 |
| **45** | prop\_location\_score\_combined\_norm\_srch\_destina... | 0.019901 |
| **46** | prop\_location\_score\_combined\_norm\_srch\_id | 0.034137 |
| **47** | price\_usd\_norm\_site\_id | 0.028895 |
| **48** | prop\_location\_score1\_norm\_site\_id | 0.017926 |
| **49** | prop\_location\_score2\_norm\_site\_id | 0.022389 |
| **50** | prop\_location\_score\_combined\_norm\_site\_id | 0.022093 |
| **51** | prop\_review\_score\_norm\_site\_id | 0.012364 |
| **52** | avg\_prop\_price\_usd | 0.021445 |
| **53** | avg\_prop\_location\_score1 | 0.013201 |
| **54** | avg\_prop\_location\_score2 | 0.021209 |
| **55** | avg\_prop\_location\_score\_combined | 0.020056 |
| **56** | avg\_prop\_review\_score | 0.005016 |
| **57** | avg\_prop\_starrating | 0.003671 |

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

> 0.03

* srch\_id
* srch\_booking\_window
* 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
* price\_usd\_norm\_site\_id
* prop\_location\_score2\_norm\_site\_id

4

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

4max#2

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