

# Restaurant Rating Prediction Model Performance Report

## 1. Model Information

Model Type: RandomForestRegressor

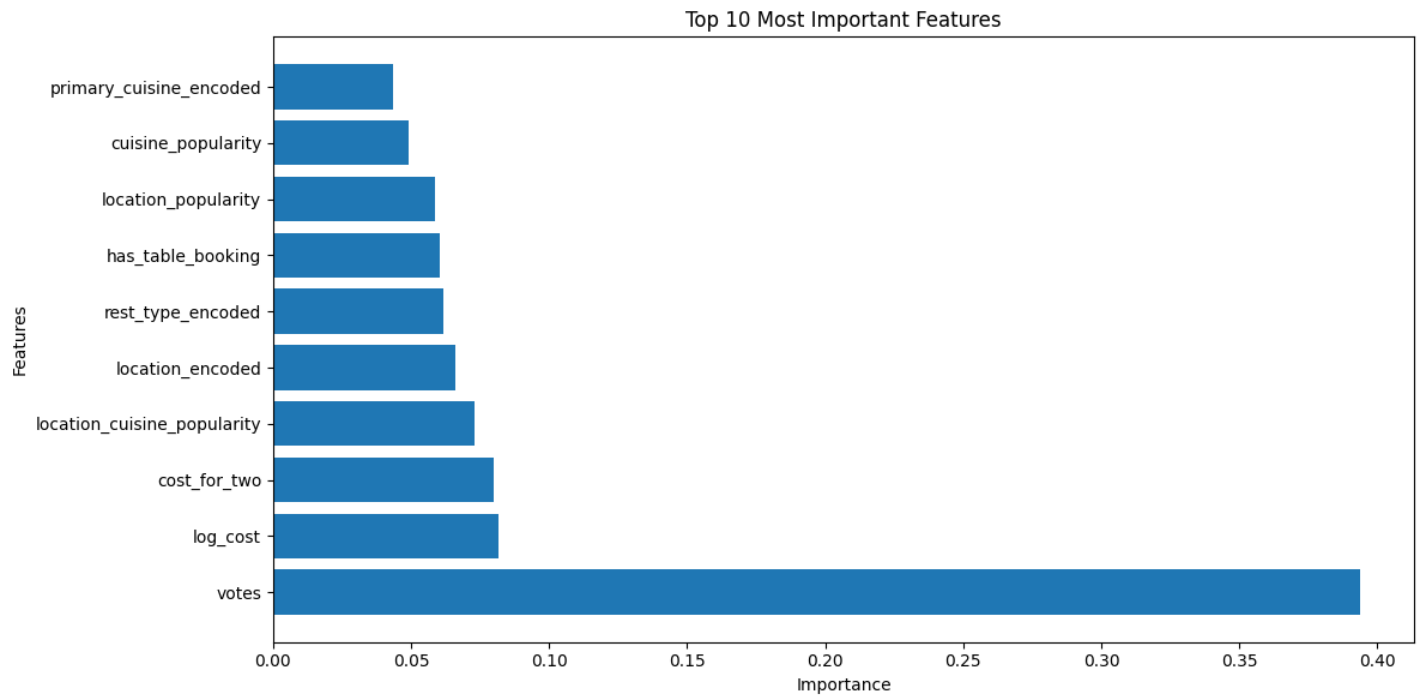
R2 Score: 0.9121

Number of Features: 12

## 2. Feature Importance Analysis

Top 5 Most Important Features:

- votes: 0.3936
- log\_cost: 0.0816
- cost\_for\_two: 0.0799
- location\_cuisine\_popularity: 0.0732
- location\_encoded: 0.0660



### 3. Example Predictions

Restaurant: Luxury Fine Dining

Location: Indiranagar

Type: Fine Dining

Cuisines: North Indian, Continental

Cost for Two: Rs. 2500

Online Order: No

Table Booking: Yes

Votes: 1000

Predicted Rating: 4.0/5.0

Restaurant: Casual Family Restaurant

Location: Koramangala

Type: Casual Dining

Cuisines: South Indian, Chinese

Cost for Two: Rs. 800

Online Order: Yes

Table Booking: No

Votes: 500

Predicted Rating: 3.8/5.0

Restaurant: Quick Service Restaurant

Location: BTM

Type: Quick Bites

Cuisines: Fast Food, Beverages

Cost for Two: Rs. 400

Online Order: Yes

Table Booking: No

Votes: 200

Predicted Rating: 3.8/5.0

## 4. Model Parameters

bootstrap: True

ccp\_alpha: 0.0

criterion: squared\_error

max\_depth: 25

max\_features: sqrt

max\_leaf\_nodes: None

max\_samples: None

min\_impurity\_decrease: 0.0

min\_samples\_leaf: 2

min\_samples\_split: 5

min\_weight\_fraction\_leaf: 0.0

monotonic\_cst: None

n\_estimators: 300

n\_jobs: -1

oob\_score: False

random\_state: 42

verbose: 0

warm\_start: False