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1 /System/Volumes/Data/Users/liangwenlong/envs/ml_env  
/bin/python3.12 /Users/liangwenlong/study/bme/3/  
ml_usage/project/solutionv2.py  
2 正在读取数据...  
3 正在进行特征工程 V2...  
4 使用的特征数量: 64  
5     识别到的类别特征 (将被特殊处理): ['deviceuniquecode'  
'', 'driver_name_and_id', 'vehicle_type', '  
vehicle_motortype', 'env_relative_humidity', '  
vehicle_type_1', 'vehicle_type_2', 'vehicle_type_3'  
'', 'vehicle_type_4', 'vehicle_type_5', '  
vehicle_type_6']  
6 开始训练 LightGBM (CV=5, Max Rounds=10000)...  
7 Training until validation scores don't improve for  
300 rounds  
8 [1000] valid_0's rmse: 0.236547  
9 [2000] valid_0's rmse: 0.235211  
10 [3000] valid_0's rmse: 0.234764  
11 [4000] valid_0's rmse: 0.234503  
12 [5000] valid_0's rmse: 0.234281  
13 [6000] valid_0's rmse: 0.234183  
14 Early stopping, best iteration is:  
15 [5845] valid_0's rmse: 0.23415  
16 Fold 1 RMSE: 31.5160  
17 Training until validation scores don't improve for  
300 rounds  
18 [1000] valid_0's rmse: 0.242109  
19 Early stopping, best iteration is:  
20 [1352] valid_0's rmse: 0.241504  
21 Fold 2 RMSE: 33.6476  
22 Training until validation scores don't improve for  
300 rounds  
23 [1000] valid_0's rmse: 0.238678  
24 [2000] valid_0's rmse: 0.238246  
25 Early stopping, best iteration is:  
26 [1736] valid_0's rmse: 0.238201  
27 Fold 3 RMSE: 33.2842  
28 Training until validation scores don't improve for  
300 rounds  
29 [1000] valid_0's rmse: 0.240002  
30 Early stopping, best iteration is:
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31 [1458] valid_0's rmse: 0.239337
32 Fold 4 RMSE: 33.5338
33 Training until validation scores don't improve for
300 rounds
34 [1000] valid_0's rmse: 0.238149
35 [2000] valid_0's rmse: 0.237373
36 [3000] valid_0's rmse: 0.237076
37 Early stopping, best iteration is:
38 [3504] valid_0's rmse: 0.23689
39 Fold 5 RMSE: 33.1833
40
41 =====
42 V2版本 平均 RMSE: 33.0330
43 =====
44 提交文件已生成: submission_v2_log_rmse_33.0330.csv
45
46 进程已结束, 退出代码为 0
47
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