1 /System/Volumes/Data/Users/liangwenlong/envs/ml_env
/bin/python3.12 /Users/liangwenlong/study/bme/3/
ml_usage/project/main.py
2 正在读取数据...
3 正在进行特征工程...
4 使用的特征数量：64
5 类别特征：[]
6 开始训练 LightGBM (CV=5)...
7 Training until validation scores don't improve for
100 rounds
8 Did not meet early stopping. Best iteration is:
9 [1990] valid_0's rmse: 29.5565
10 Fold 1 RMSE: 29.5565
11 Training until validation scores don't improve for
100 rounds
12 Did not meet early stopping. Best iteration is:
13 [1998] valid_0's rmse: 30.4766
14 Fold 2 RMSE: 30.4766
15 Training until validation scores don't improve for
100 rounds
16 Did not meet early stopping. Best iteration is:
17 [2000] valid_0's rmse: 29.2843
18 Fold 3 RMSE: 29.2843
19 Training until validation scores don't improve for
100 rounds
20 Did not meet early stopping. Best iteration is:
21 [2000] valid_0's rmse: 30.6221
22 Fold 4 RMSE: 30.6221
23 Training until validation scores don't improve for
100 rounds
24 Did not meet early stopping. Best iteration is:
25 [2000] valid_0's rmse: 29.9215
26 Fold 5 RMSE: 29.9215
27
28 ==
29   本地验证集平均 RMSE: 29.9722
30 ==
31   提交文件已生成：submission_lgbm_rmse_29.9722.csv
32   特征重要性图表已保存：feature_importance.png
33
34 进程已结束，退出代码为 0