

□HangangPark

**ANALYSIS**

**TUKSEOM**

# Hangang Park Principal Data

Seoul Open Data Plaza - Daily Usage of Hangang Park Parking Lots (2020-2024)

지구별	주차장명	주차대수	이용시간	날짜
0 PLT-005	뚝섬1주차장	273	22891	2024/11/10
1 PLT-011	잠실1주차장	1059	66361	2024/11/10
2 PLT-001	강서1주차장	329	26875	2024/11/10
3 PLT-008	여의도5주차장	229	22509	2024/11/10
4 PLT-008	여의도2주차장	1934	150135	2024/11/10

[ '강서1주차장' ]

[ '난지1,2,3주차장' ]

[ '망원2,3주차장' '망원1주차장' ]

[ '이촌2주차장' '이촌1주차장' '이촌3주차장' '이촌3,4주차장' ]

[ '뚝섬1주차장' '뚝섬3주차장' '뚝섬4주차장' '뚝섬2주차장' ]

[ '광나루4주차장' '광나루1,2주차장' '광나루3주차장' ]

[ '양화1주차장' '양화2주차장' '양화3주차장' '양화3,4,5주차장' ]

[ '여의도5주차장' '여의도2주차장' '여의도1주차장' '여의도4주차장' '여의도3주차장' ]

[ '반포1주차장' '반포2,3주차장' ]

[ '잠원2-6주차장' '잠원1주차장' '잠원1-6주차장' ]

[ '잠실1주차장' '잠실4주차장' '잠실1,2,3,4주차장' ]

## Columns

**District:** Hangang Park district number

**Parking Lot Name:** Name of the parking lot

**Parking Count:** Total daily parking count

**Usage Time:** Total daily usage time

**Date:** Data collection date

## Analysis Process

**Unique Parking Lot Names by District**

Verified that parking lot names do not overlap within each district.

**Selection of Target Parks**

Chose "Ttukseom Hangang Park" and "Yeouido Hangang Park" based on high usage potential.

**Focus on Ttukseom Hangang Park**

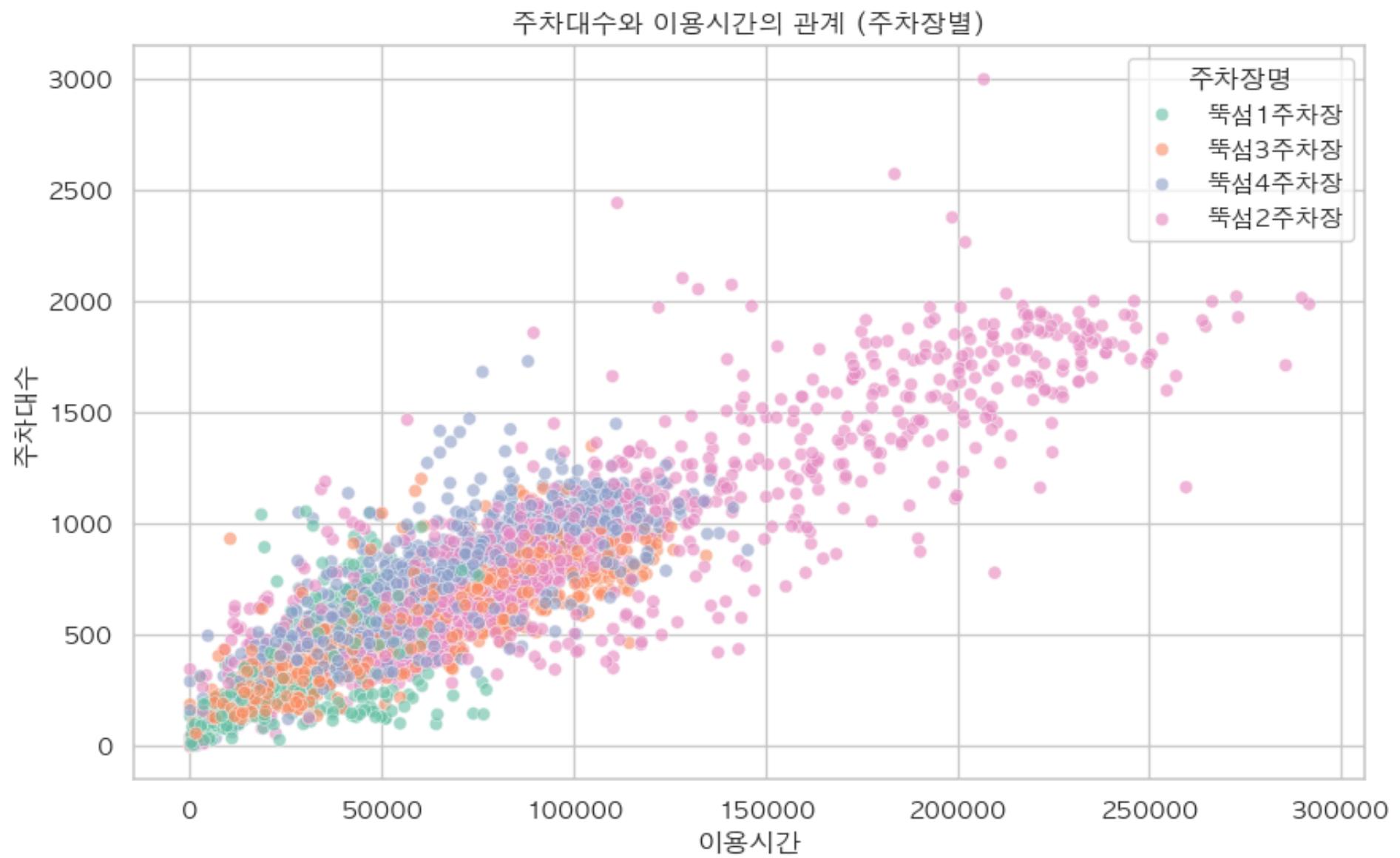
Conducted detailed analysis on "Ttukseom Hangang Park."

## Additional Data

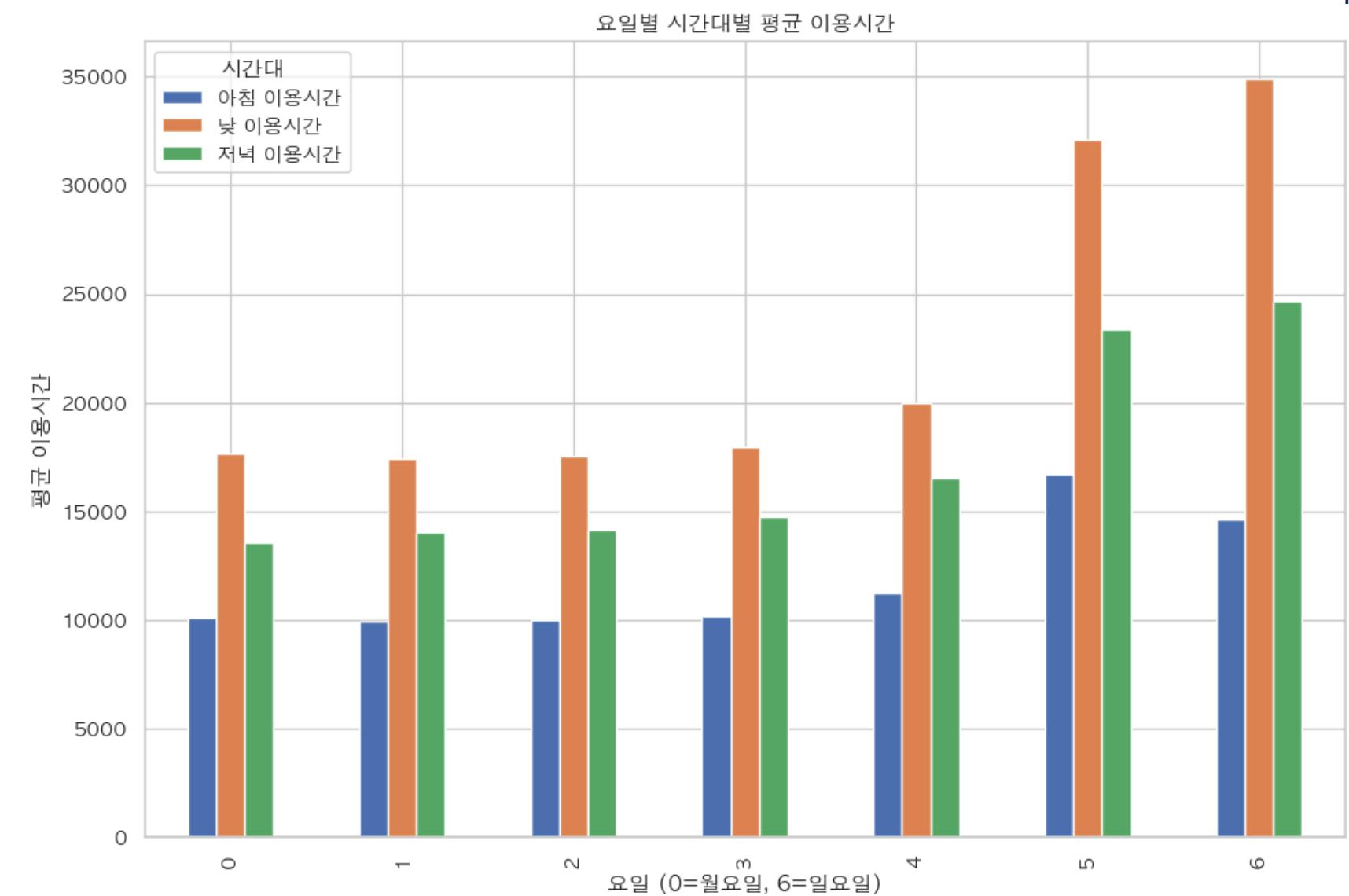
1. Monthly Visitor Statistics for Hangang Park in Seoul
2. Seoul Traffic Volume Data (Daily/Hourly)
3. Seoul Weather Data (Daily)

# HangangPark

## Relationship Between Parking Count and Usage Time



## Weekly Occupancy Rate for Four Parking Lots in Ttukseom



## Cross-Validation

```
교차 검증 점수: [0.87475249 0.9207743 0.92790287 0.91641075 0.92299488]  
평균 교차 검증 점수: 0.91  
교차 검증 점수의 표준편차: 0.02  
전체 데이터 학습 점수: 0.98
```

### Cross-Validation

The model achieved an average cross-validation score of 0.91 with a standard deviation of 0.02, indicating consistent performance across folds.

## Final Model Scores

```
이용시간 모델 평균 훈련 점수 ( $R^2$ ): 0.9593  
이용시간 모델 평균 테스트 점수 ( $R^2$ ): 0.8325  
주차대수 모델 훈련 점수: 0.9842  
주차대수 모델 테스트 점수: 0.8981
```

### Final Model Scores

- The usage time model achieved an  $R^2$  of 0.9593 during training and 0.8325 during testing, showing strong predictive accuracy.
- The parking count model performed slightly better with a training  $R^2$  of 0.9842 and a test  $R^2$  of 0.8981.