

모더니즘 주요 예술

데이터에 없는 사람의 마음을 예측하다

제작: 한지원, 방우영, 최정완

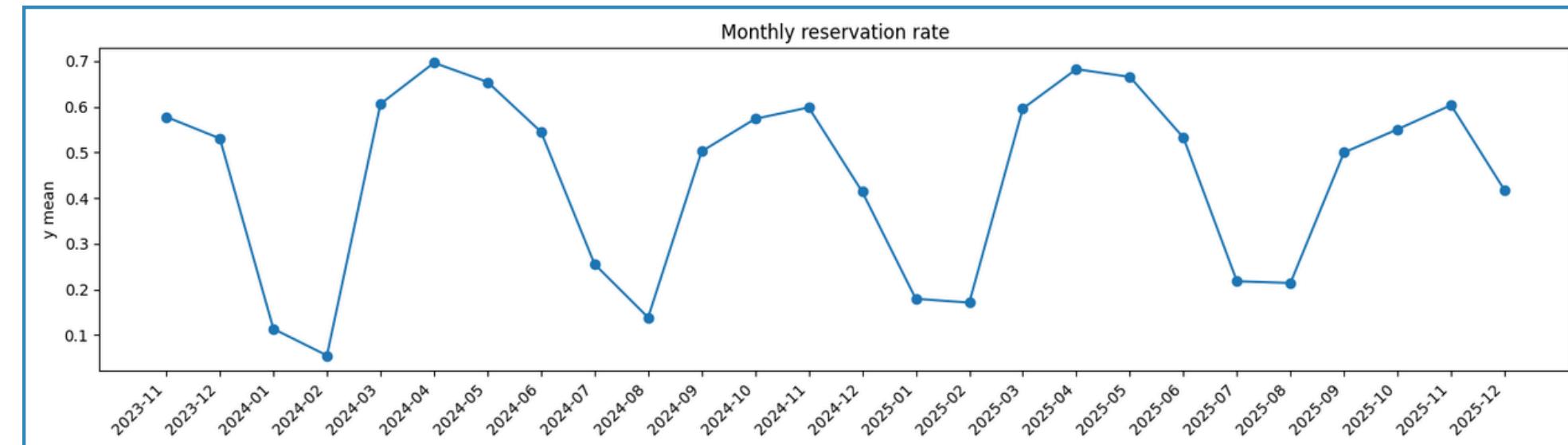
Dataset



Dataset-less



**Reservation
Data Crawling**



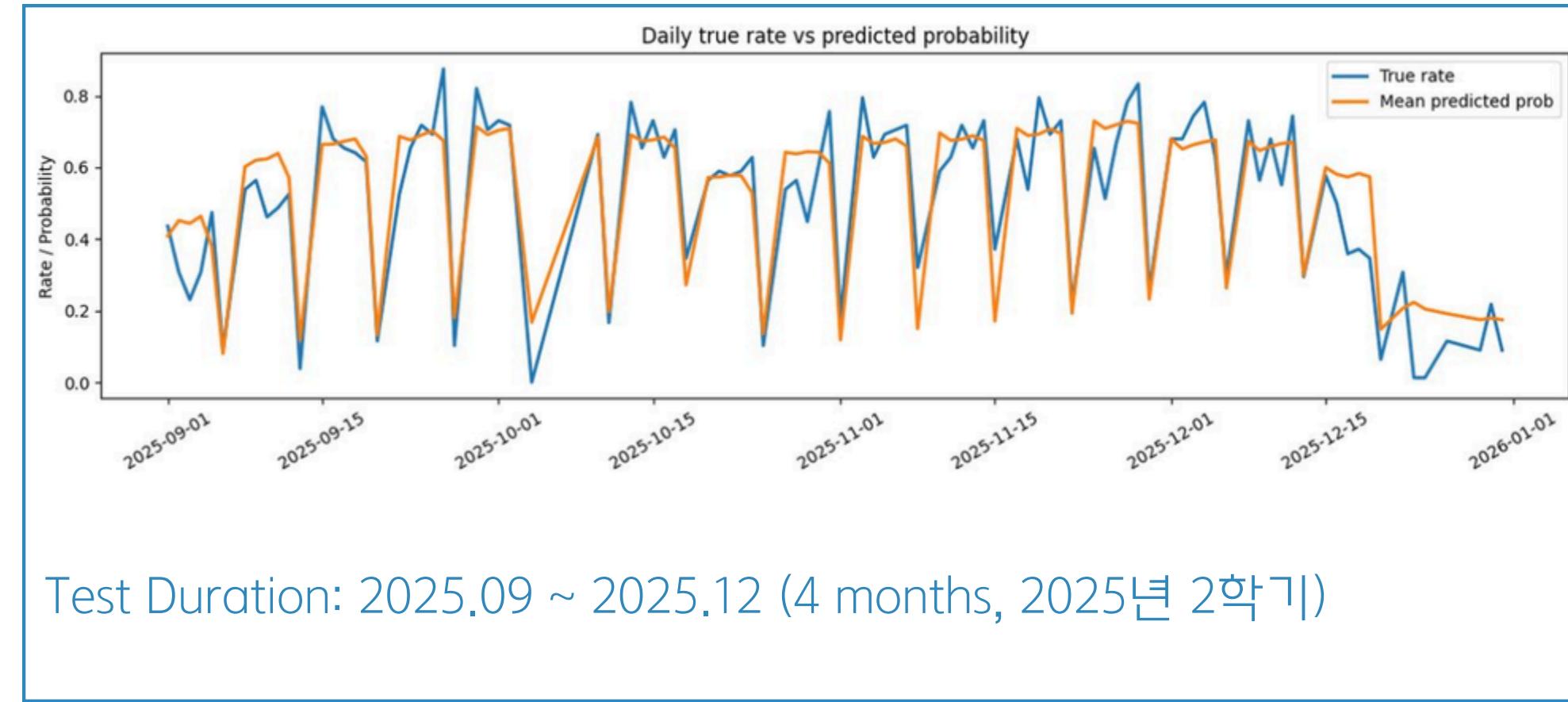
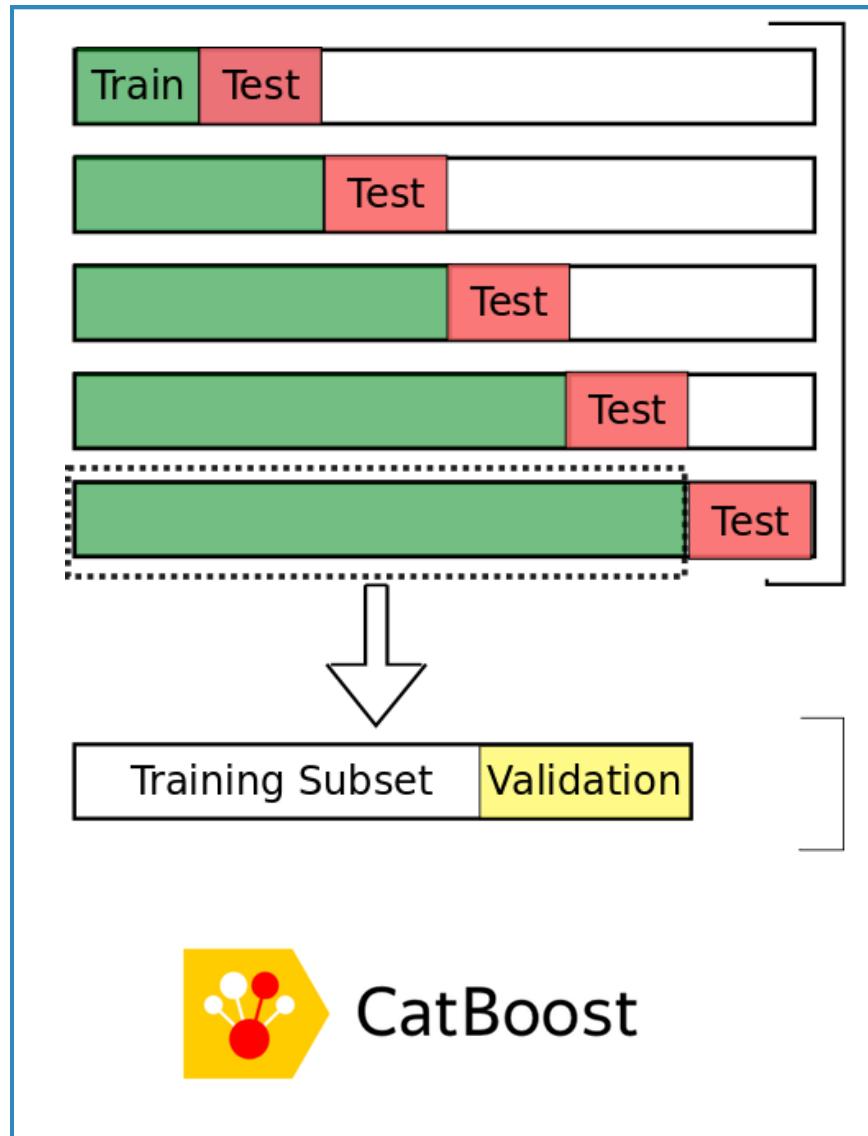
Size: 61,776 Rows

Duration: 2023.11 ~ 2025.12 (26 months)

Feature: Date, Hour, Room_ID, Is_Open, Reserved

시계열의 뚜렷한 계절적 변동성이 학사 일정과 일치.
학기 중에 최고치를 기록하고 방학 기간에 최저치를 기록.

Modeling



LogLoss: 0.4884 / AUC: 0.8421 / Accuracy 0.78

Time-series Analysis

시계열 = 추세(Trend) + 계절성(Seasonality) + 잔차(Residual)

The Known / Quantitative



- Time (Hour, Day of Week)
- Seasonality (Exam Period, Festival, Vacation)
- Lag Features (Recent Trends)

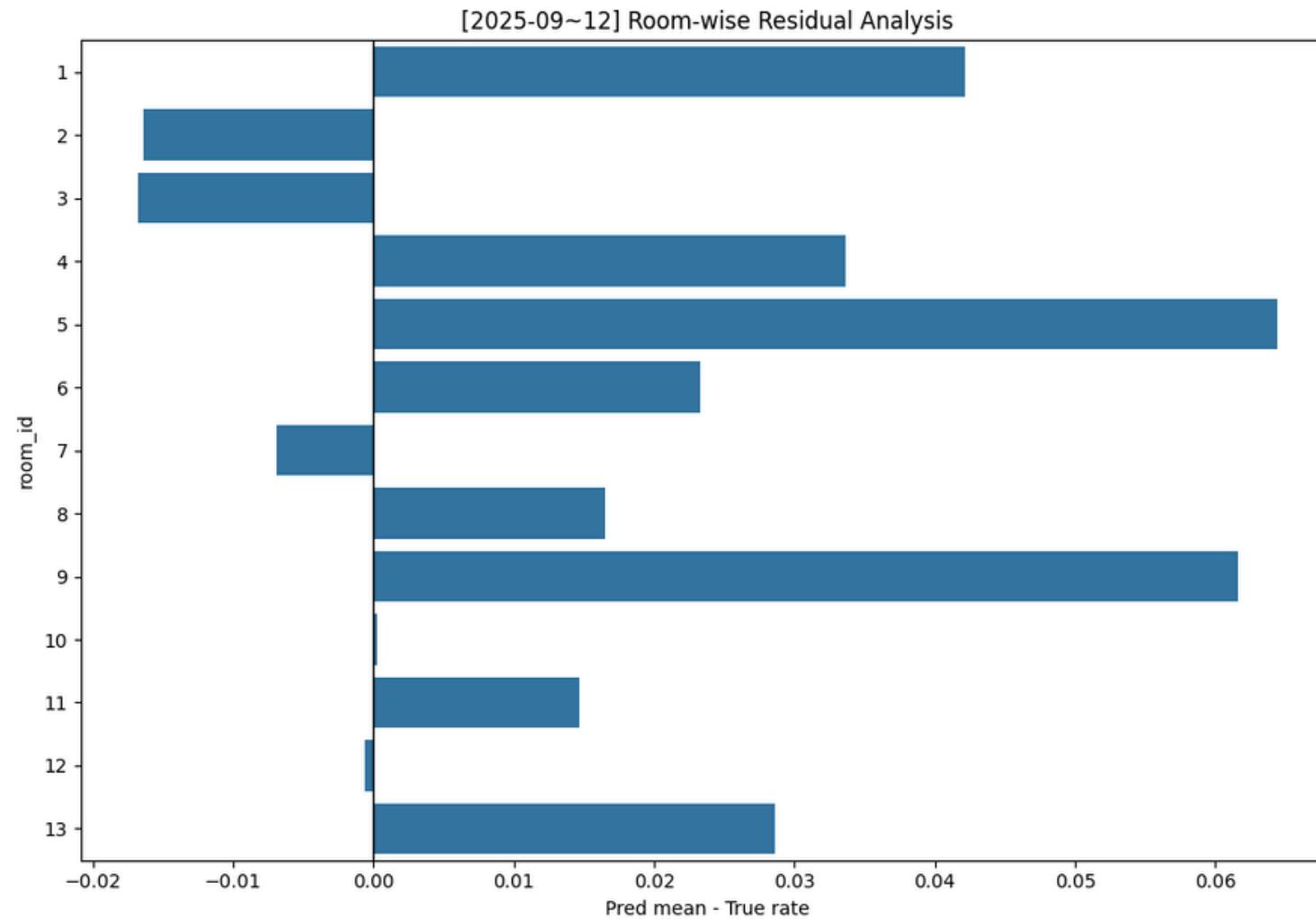
The Unknown / Qualitative



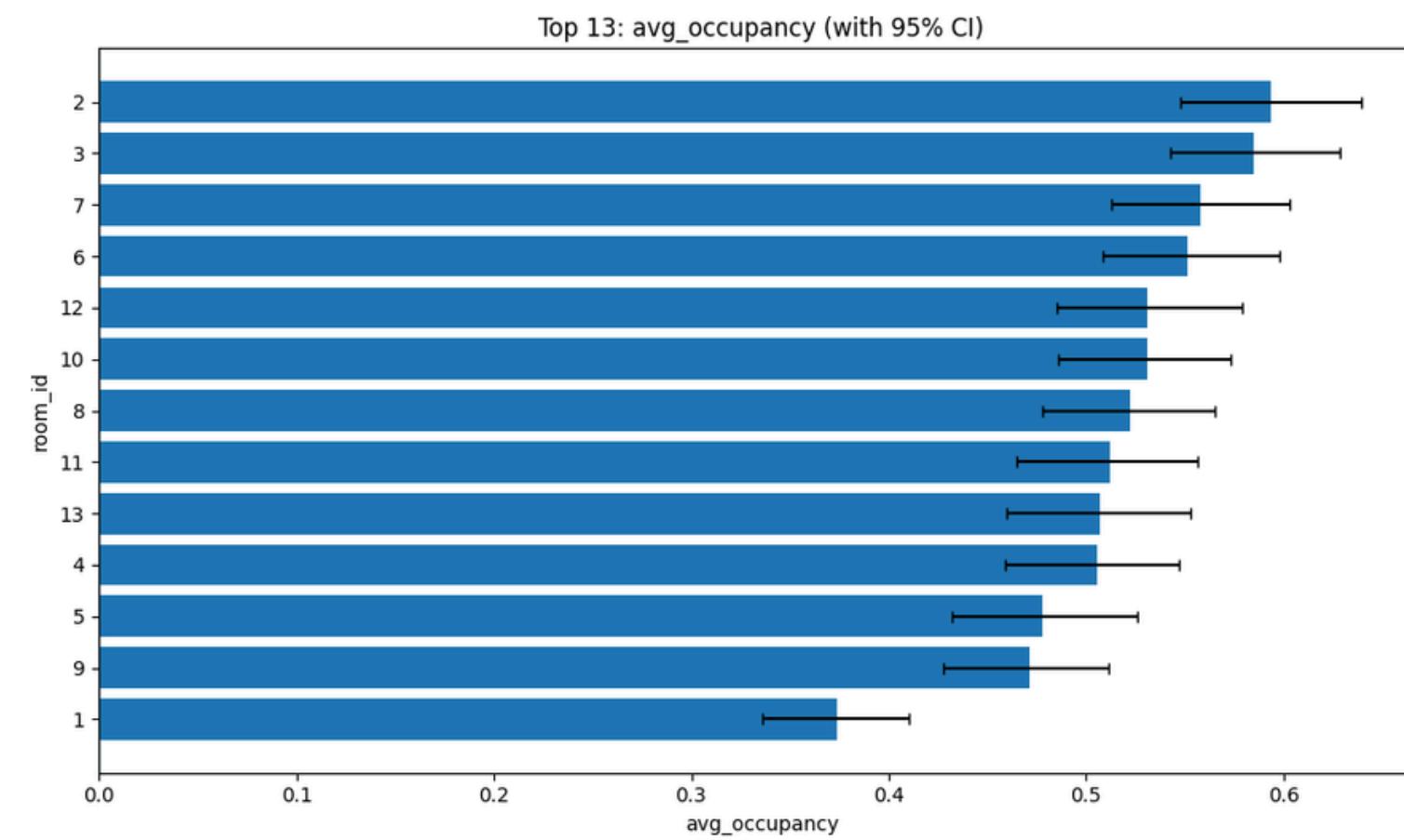
- Physical Condition (Window, Equipment)
- Location (Corner vs Center)
- Atmosphere (Noise level, Smell)

Residual Analysis

모델을 판다

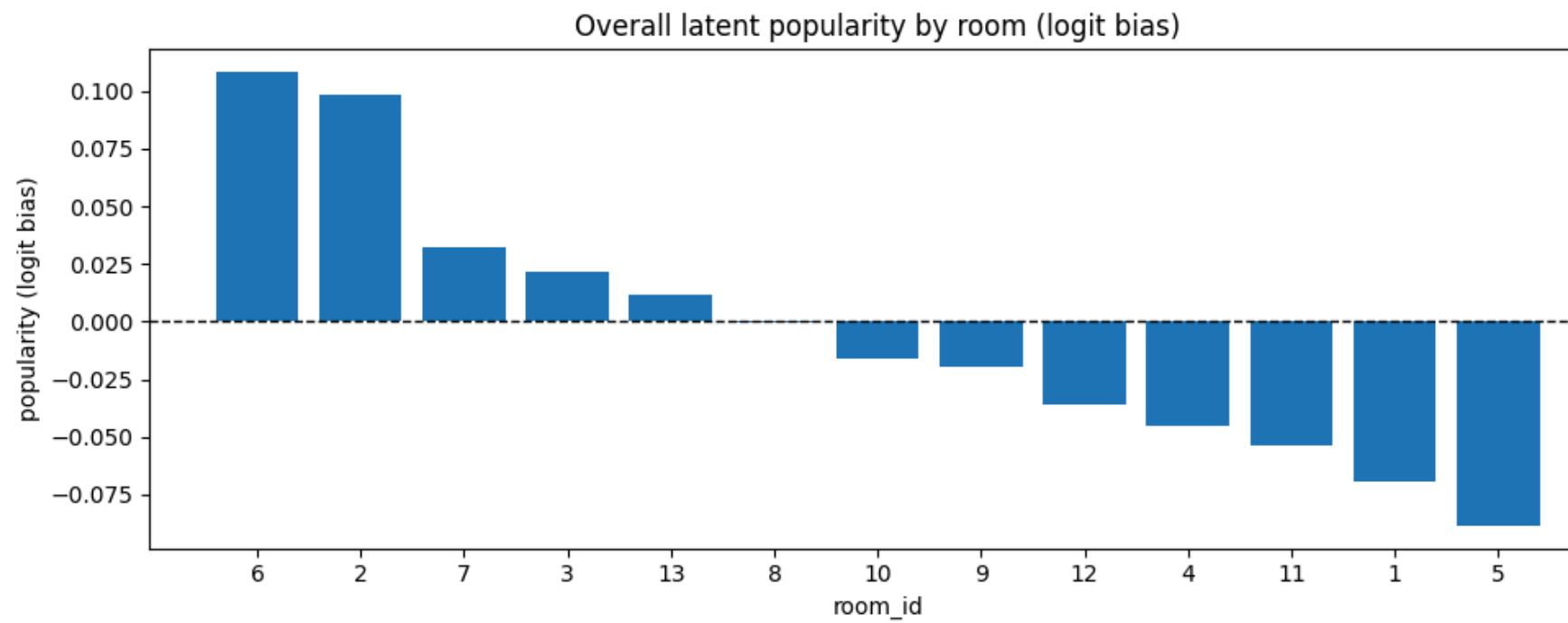


예약률

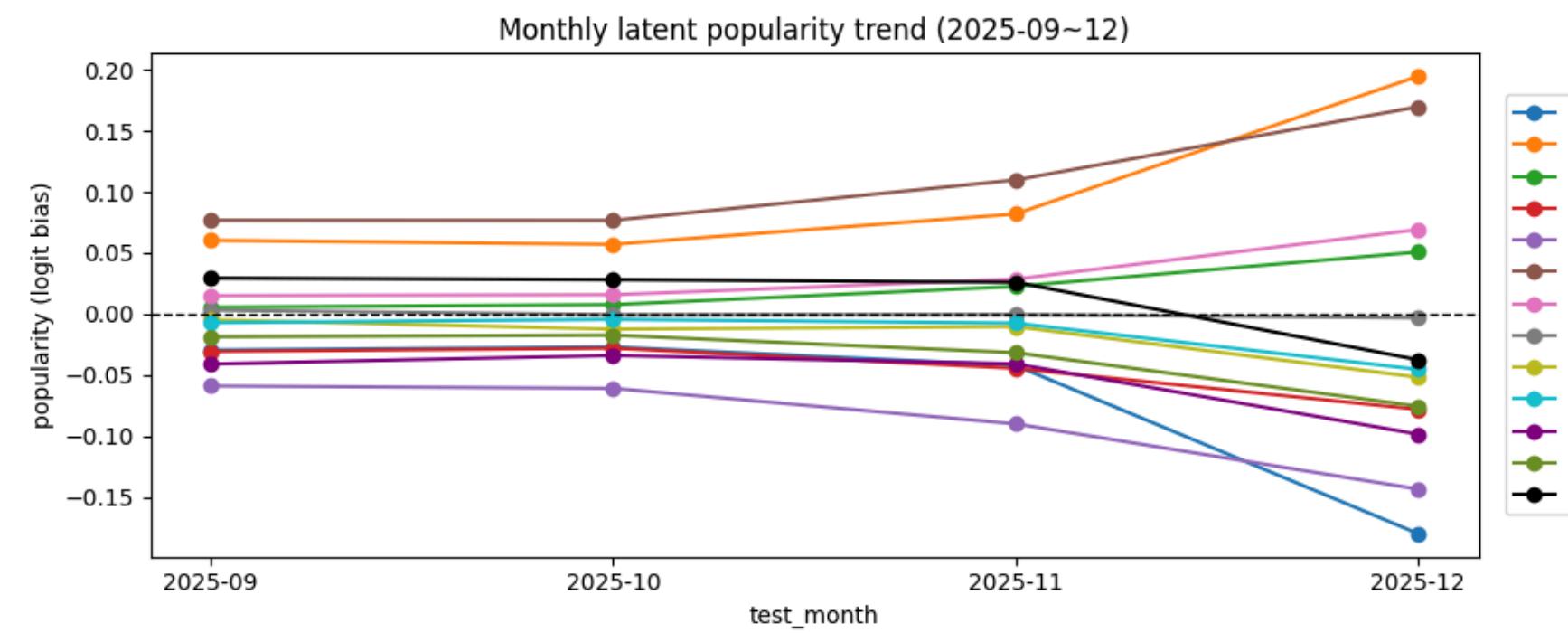


$\text{spearman}(\text{residual}, \text{avg_occ}) = -0.91$

잠재 인기도



월별 인기도 변화



드마론 서비스 구현 계획

User

- AI-Driven Recommendation
 - Input: 날짜/시간/인원 -> Output: 예약 성공률 높은 Top-K 룸 추천
- Reliability Badge
 - 신뢰도가 부족한 방학 등은 "신뢰도 낮음" 표시로 사용자 주의 환기
- Visual Heatmap
 - 성공확률/혼잡도 시각화

Admin

- Performance Dashboard:
 - 월별/학기별 모델 성능(LogLoss, AUC) 모니터링.
- Latent Preference Monitoring:
 - Sudden Shift: 이번 달 선호도(Δ) 급변 룸 감지 (예: Room 4 수요 급락).
- Operational Alerts:
 - 예측-실측 괴리(Residual) 급증 시 "점검 필요" 알림 발송.