

SALES ANALYSIS AND INSIGHTS

KEY INSIGHTS:

- Historical sales show strong seasonal patterns with Q4 peaks
- · Prophet model forecasts continued upward growth trend
- Confidence intervals indicate moderate forecast uncertainty

BUSINESS RECOMMENDATIONS:

- → Increase inventory 2-3 months before Q4 holiday season
- → Plan targeted promotions during off-peak months (Feb-Apr)
- → Use forecast confidence bounds for risk-adjusted planning
- → Monitor actual sales vs forecast to refine future predictions

Model Performance (Prophet cross-validation):

- MAE (Mean Absolute Error): 11,161
- RMSE (Root Mean Squared Error): 12,220



