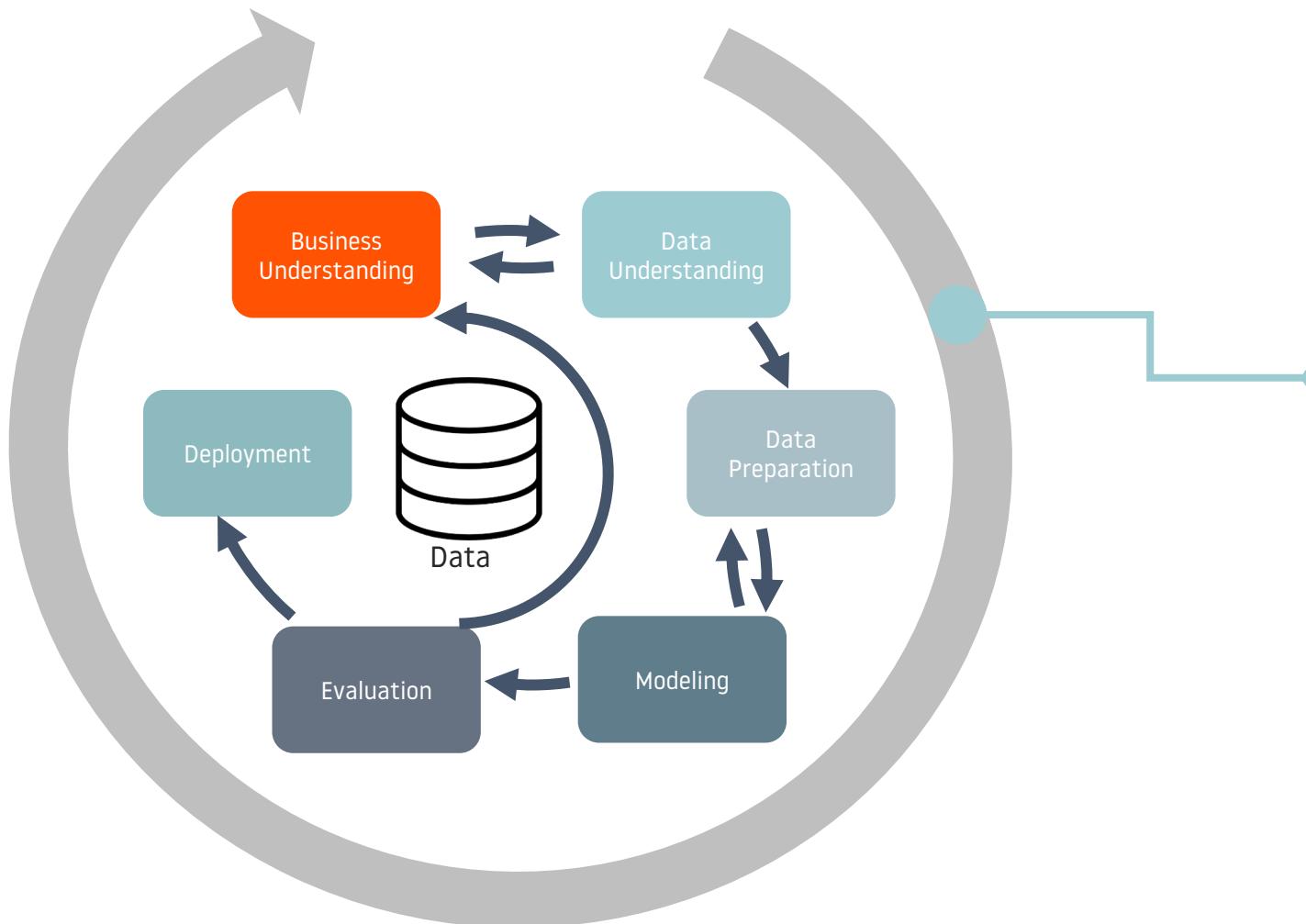


BIKE SHARING IN WASHINGTON D.C

Group E

Furquan, Fei, Hatem, Theodore, Mrad, Emily, Rafael

THE APPROACH



CRISP-DM methodology
for project set-up

BUSINESS UNDERSTANDING



capital  bikeshare

Increase revenue



Optimization



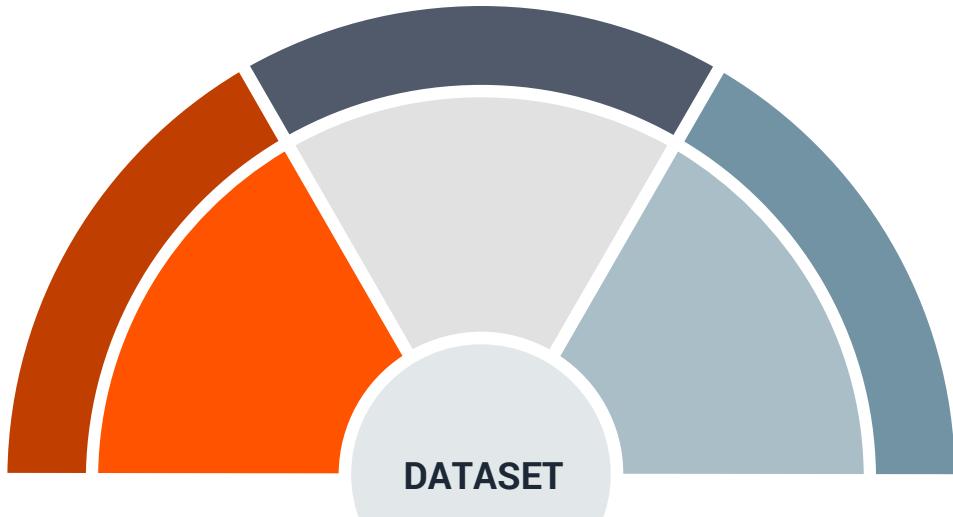
Predictive model



Data driven automation



DATA UNDERSTANDING



BIKE SHARING

IN WASHINGTON D.C.



TIME SERIES

2 YEARS: 2011-2012



FEATURES

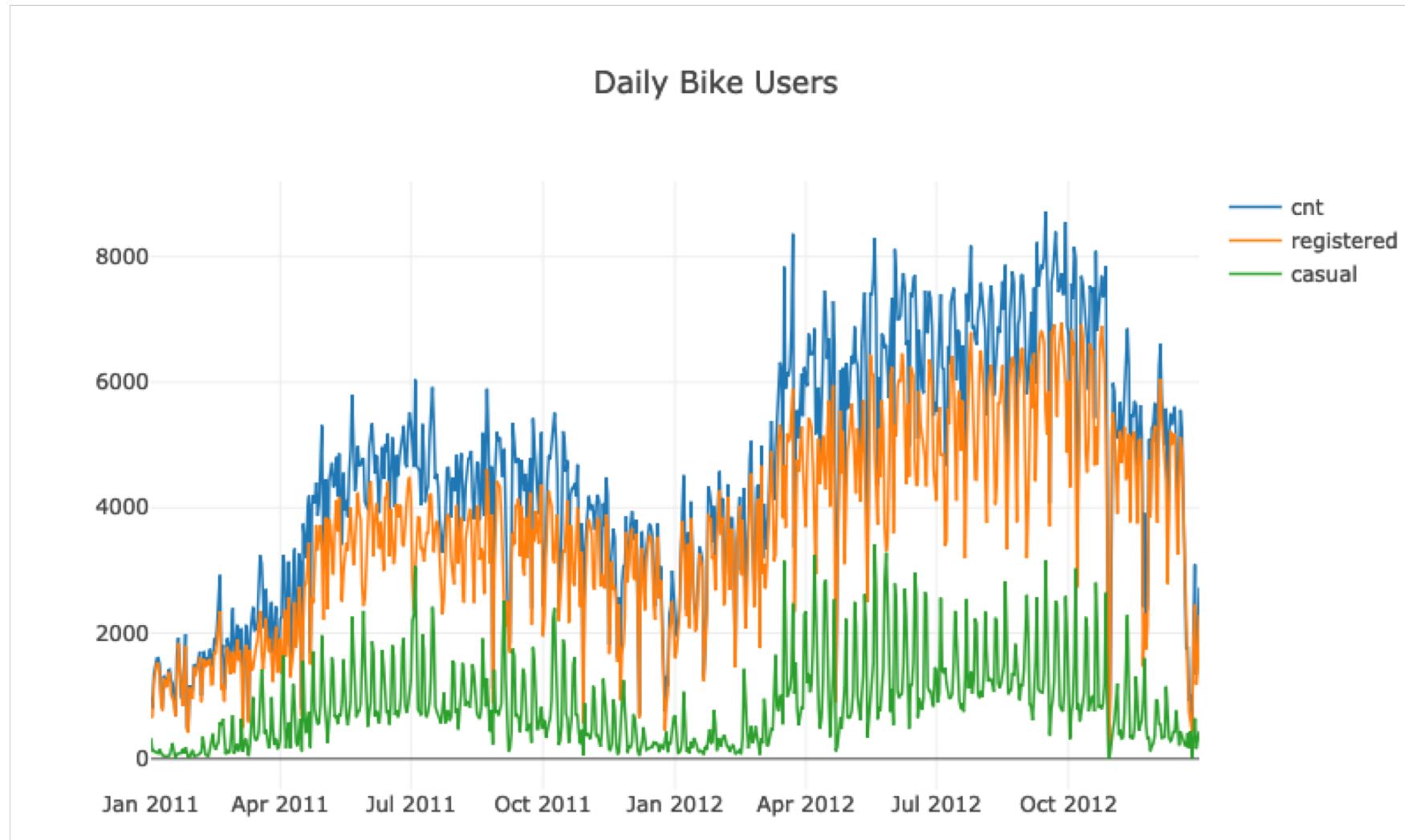
17 DIFFERENT FEATURES



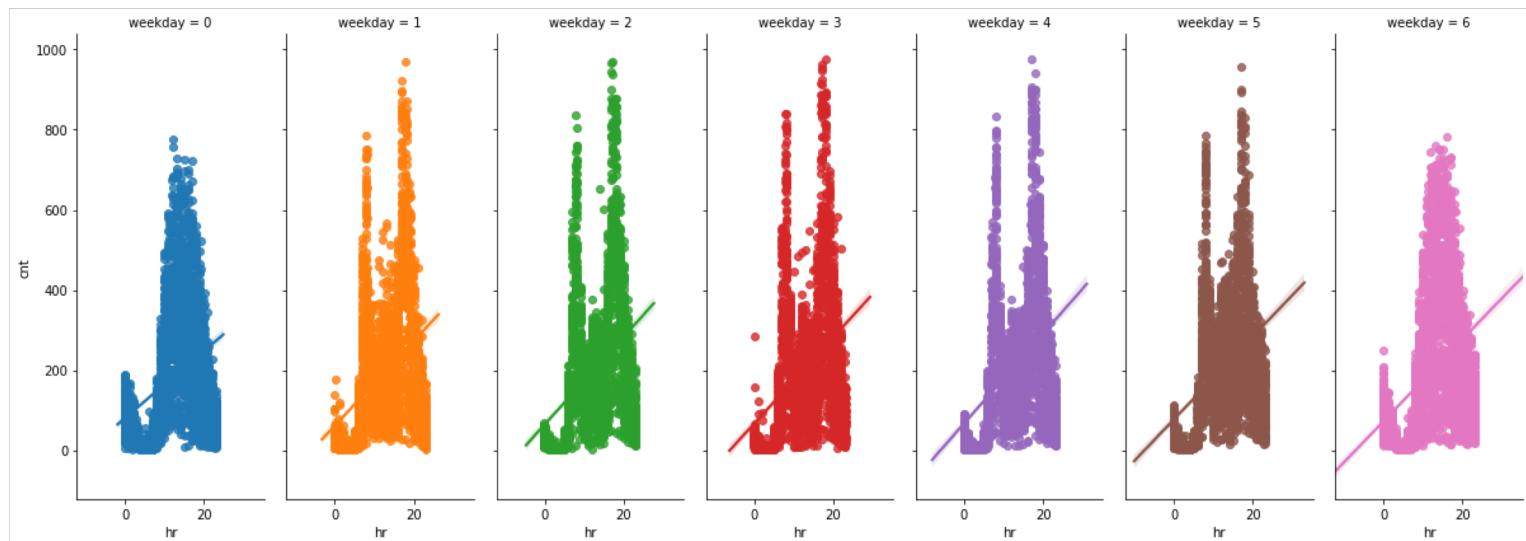
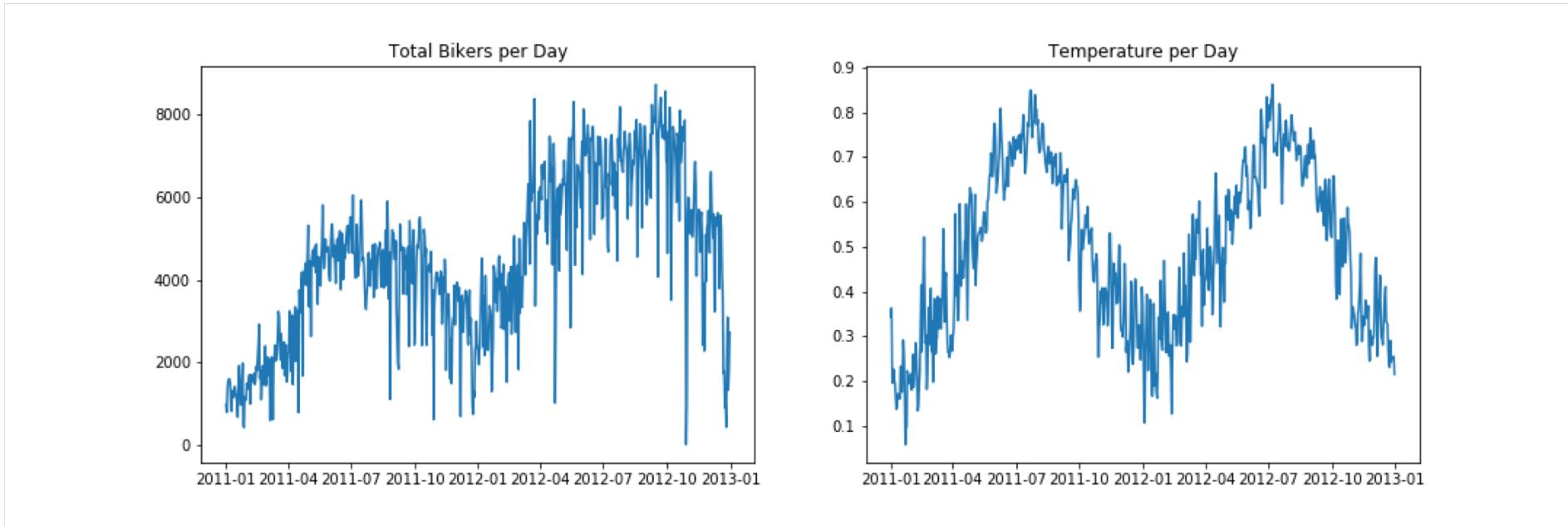
TARGET

NUMBER OF BICYCLE USERS

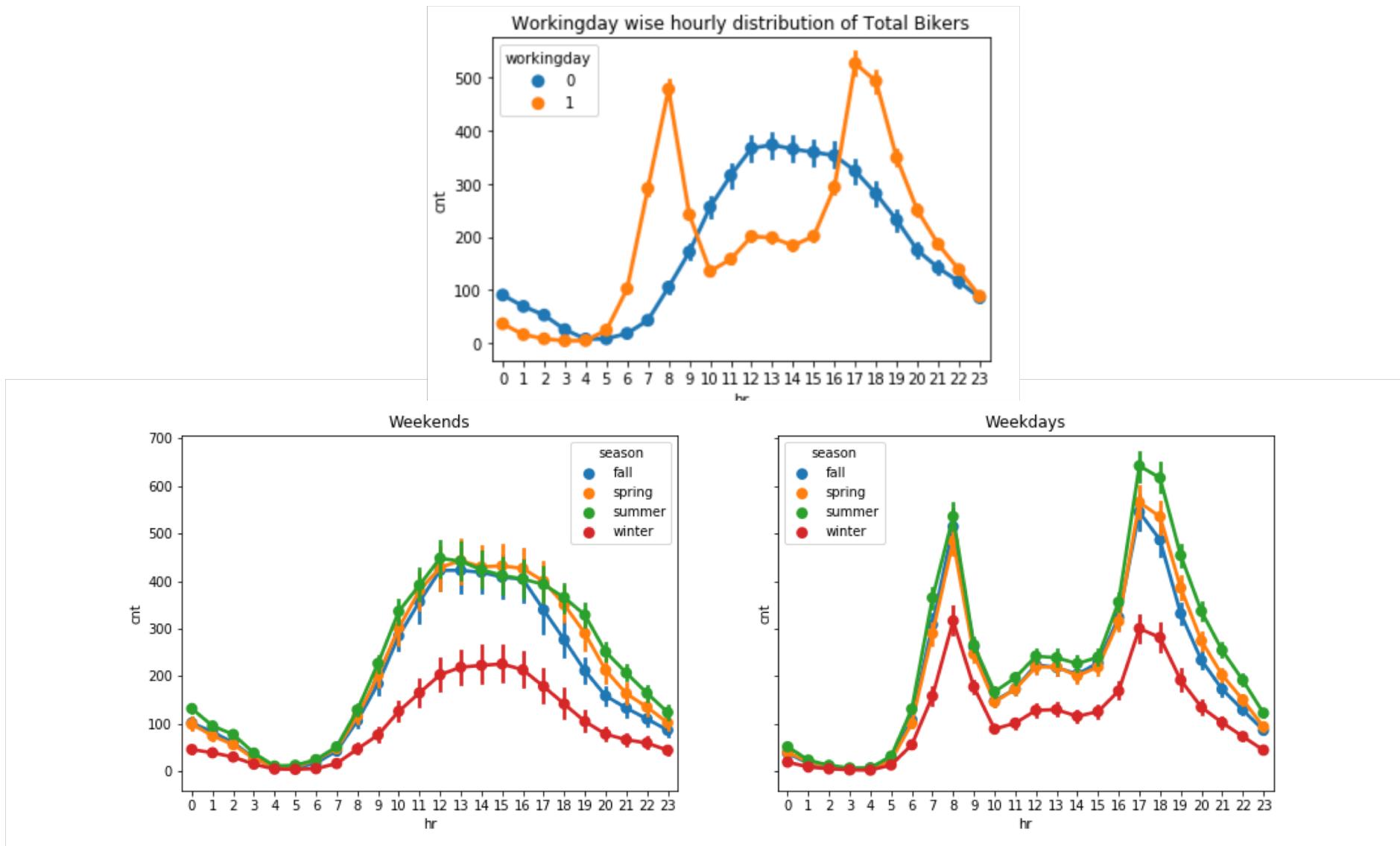
DATA UNDERSTANDING



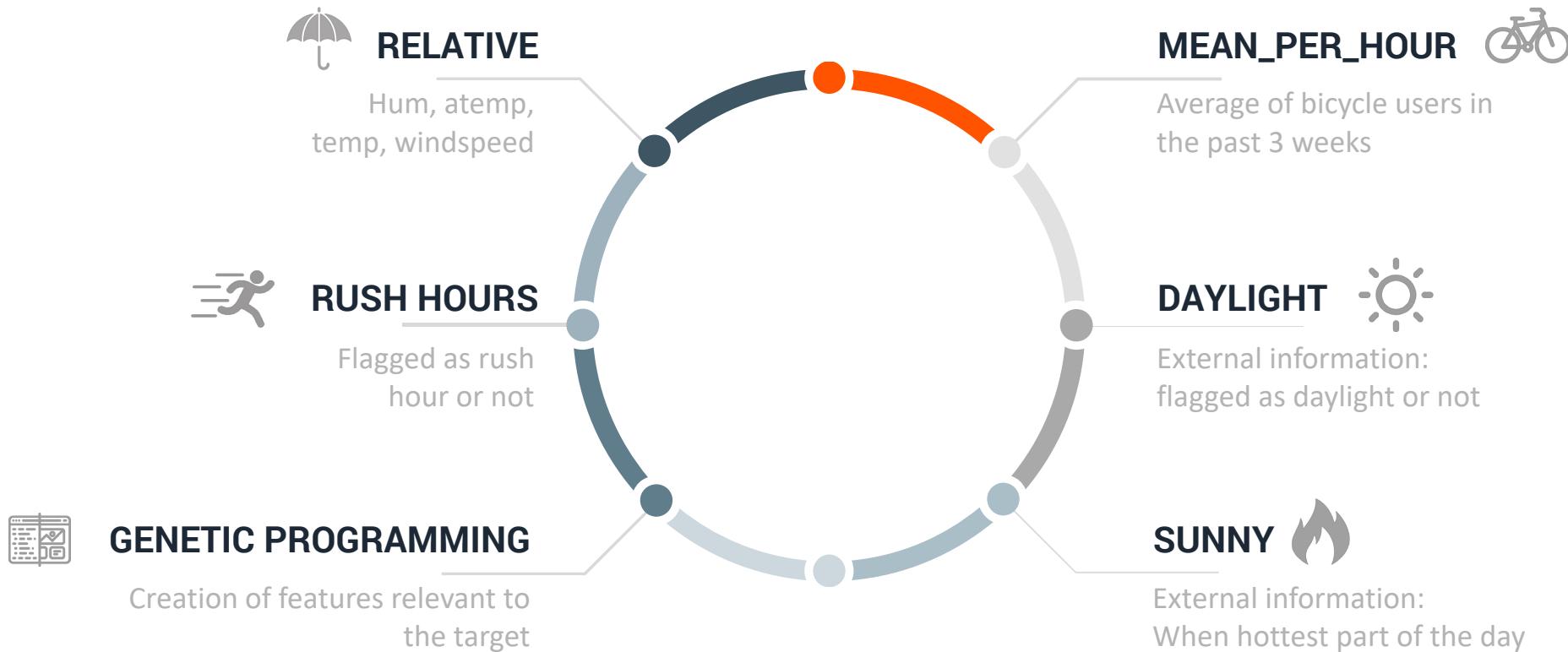
DATA UNDERSTANDING



DATA UNDERSTANDING

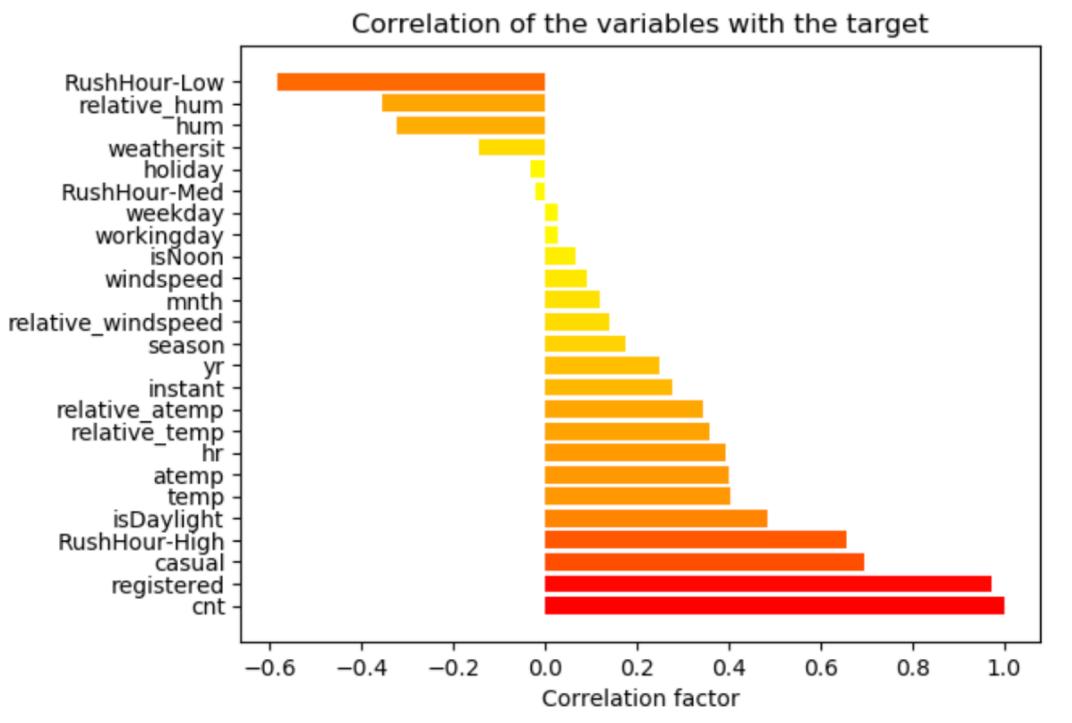


FEATURE ENGINEERING

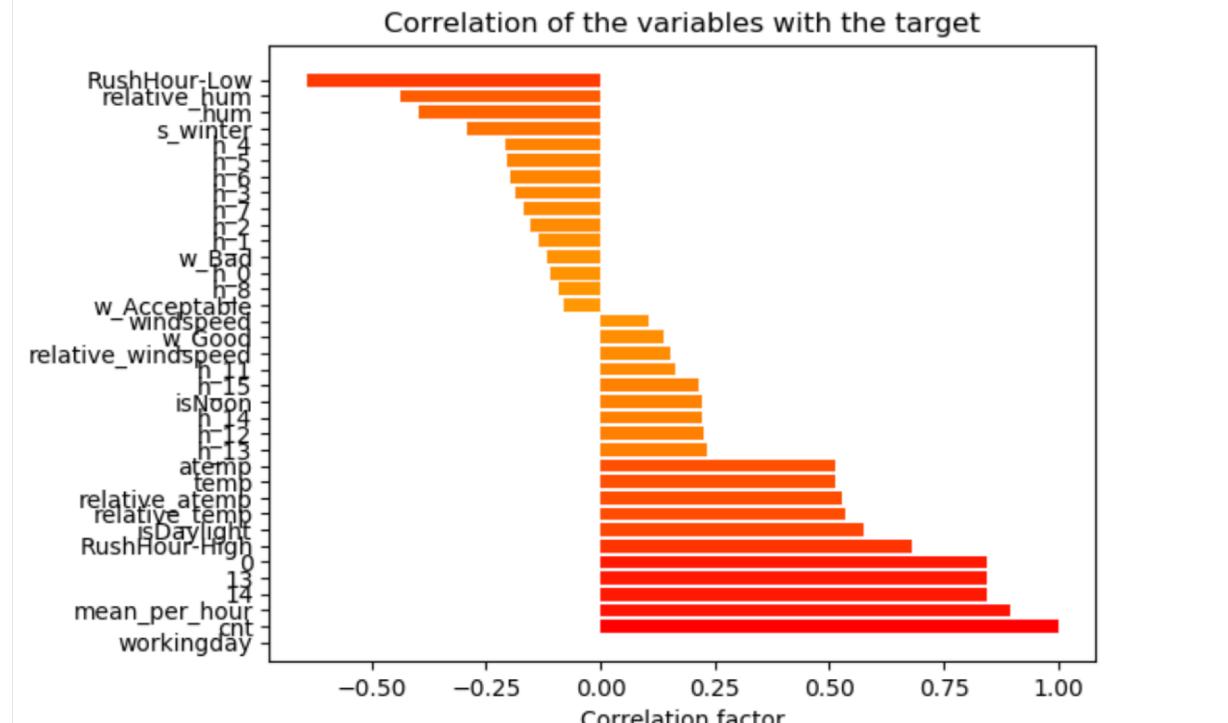


FEATURE ENGINEERING

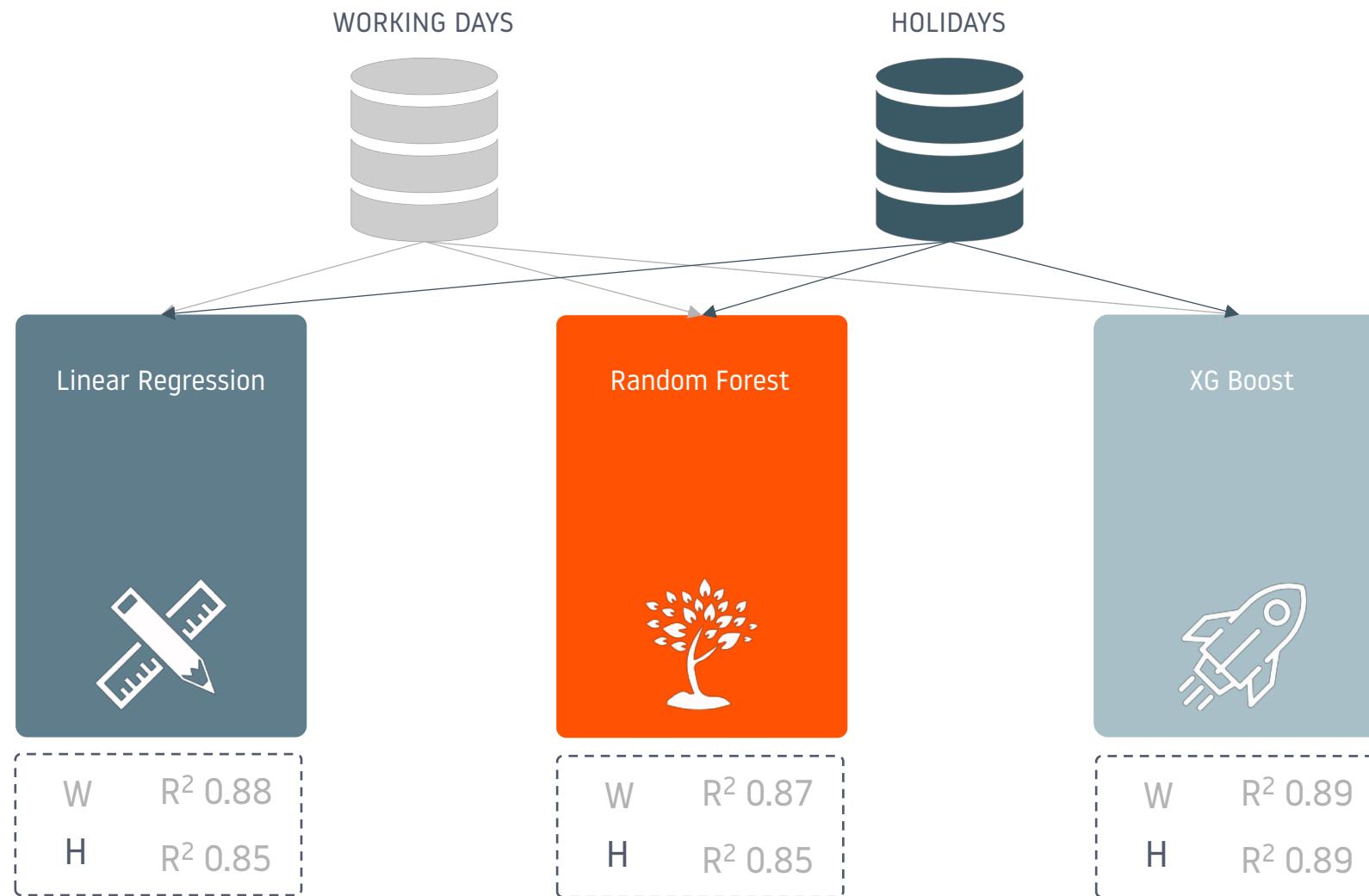
ORIGINAL FEATURES



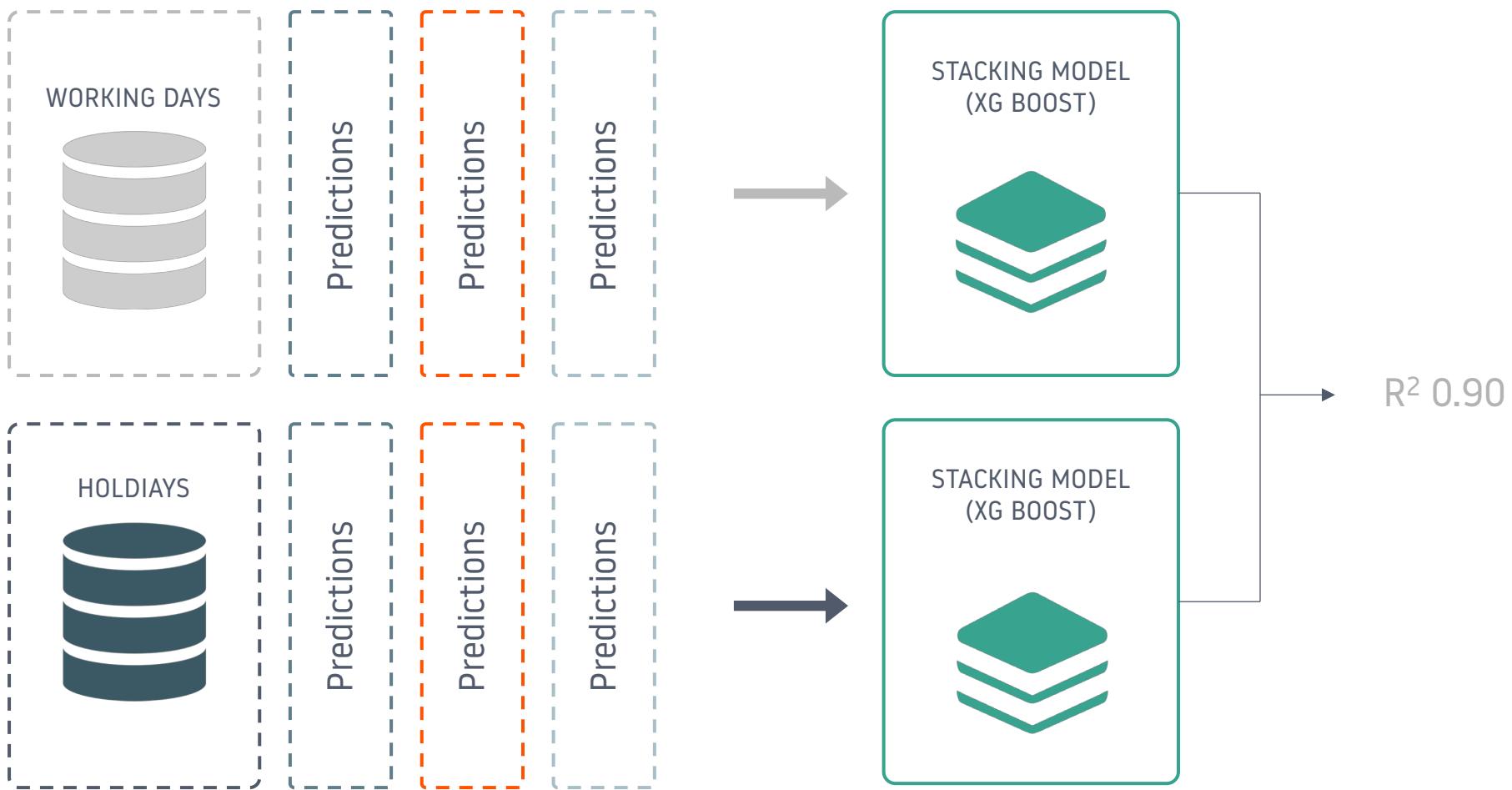
NEW FEATURES



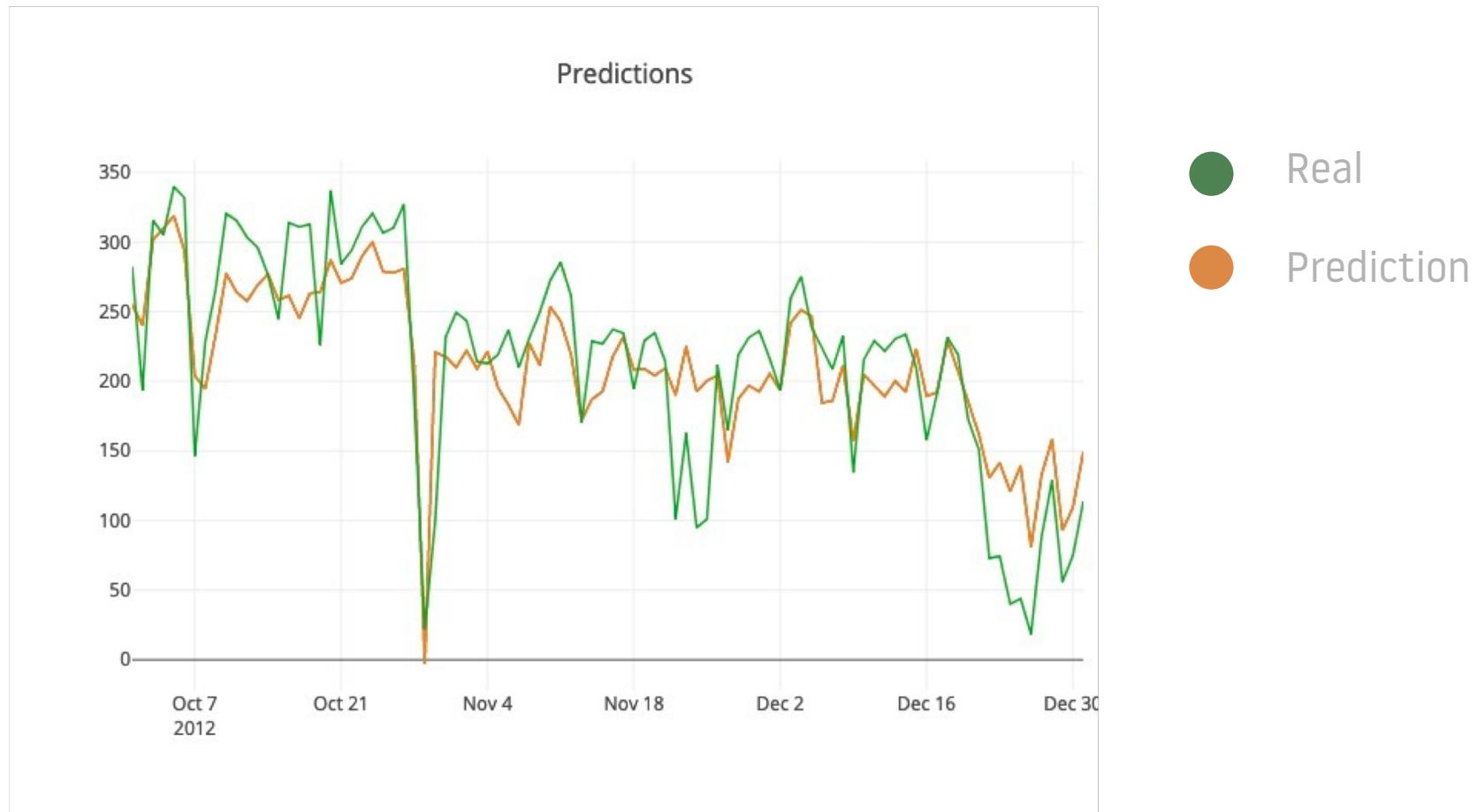
DATA MODELING



MODEL STACKING



REAL VS. PREDICTED



IMPLEMENTATION & MAINTENANCE



- BUSINESS
- KPI's, METRICS



- QUATERLY EARNINGS
- SEASONAL TRENDS

BUSINESS & NEXT STEPS



- Incentivizing registered user
- Surge pricing
- Forecast-based promotions

- Predicting:
- Casual users
 - Registered users

- Governments
- City planning
- Bike lanes
- Transport flow



THANK YOU