

Abstract geometric lines in the top-left corner of the page, consisting of several overlapping, irregular polygons and lines that create a complex, layered effect.

RELAX INC. TAKE-HOME CHALLENGE

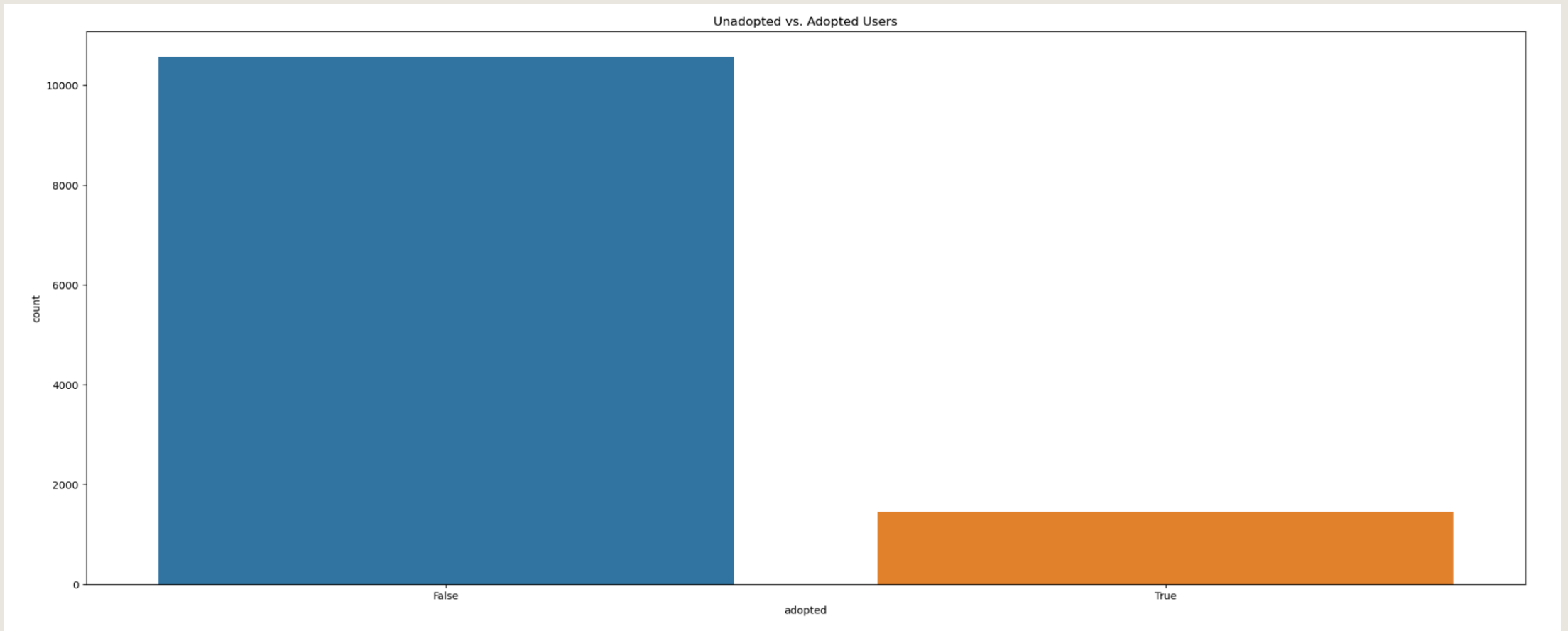
By: Christopher Le



PROBLEM STATEMENT

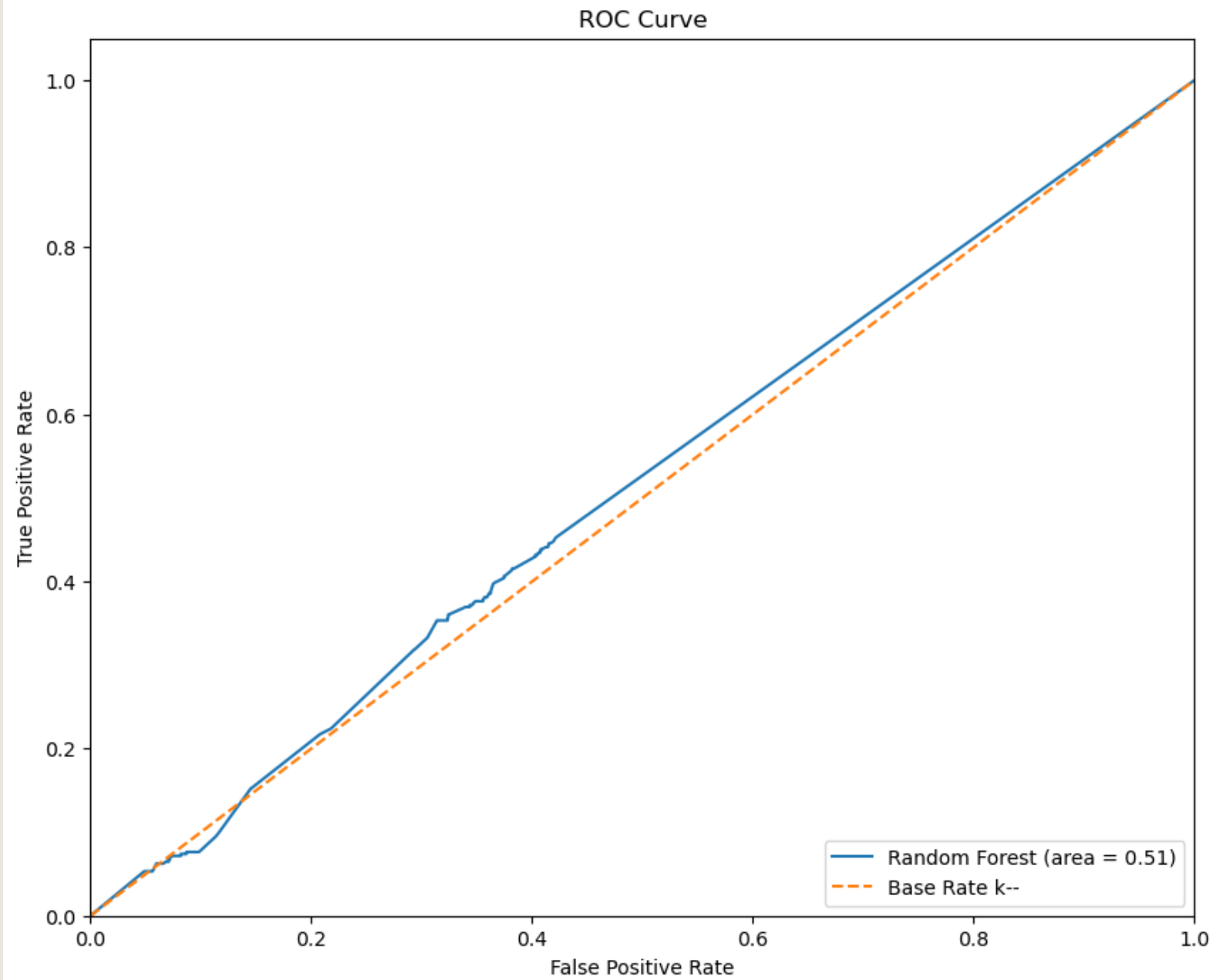
How can Relax Inc. identify which factors predict future user adoption?

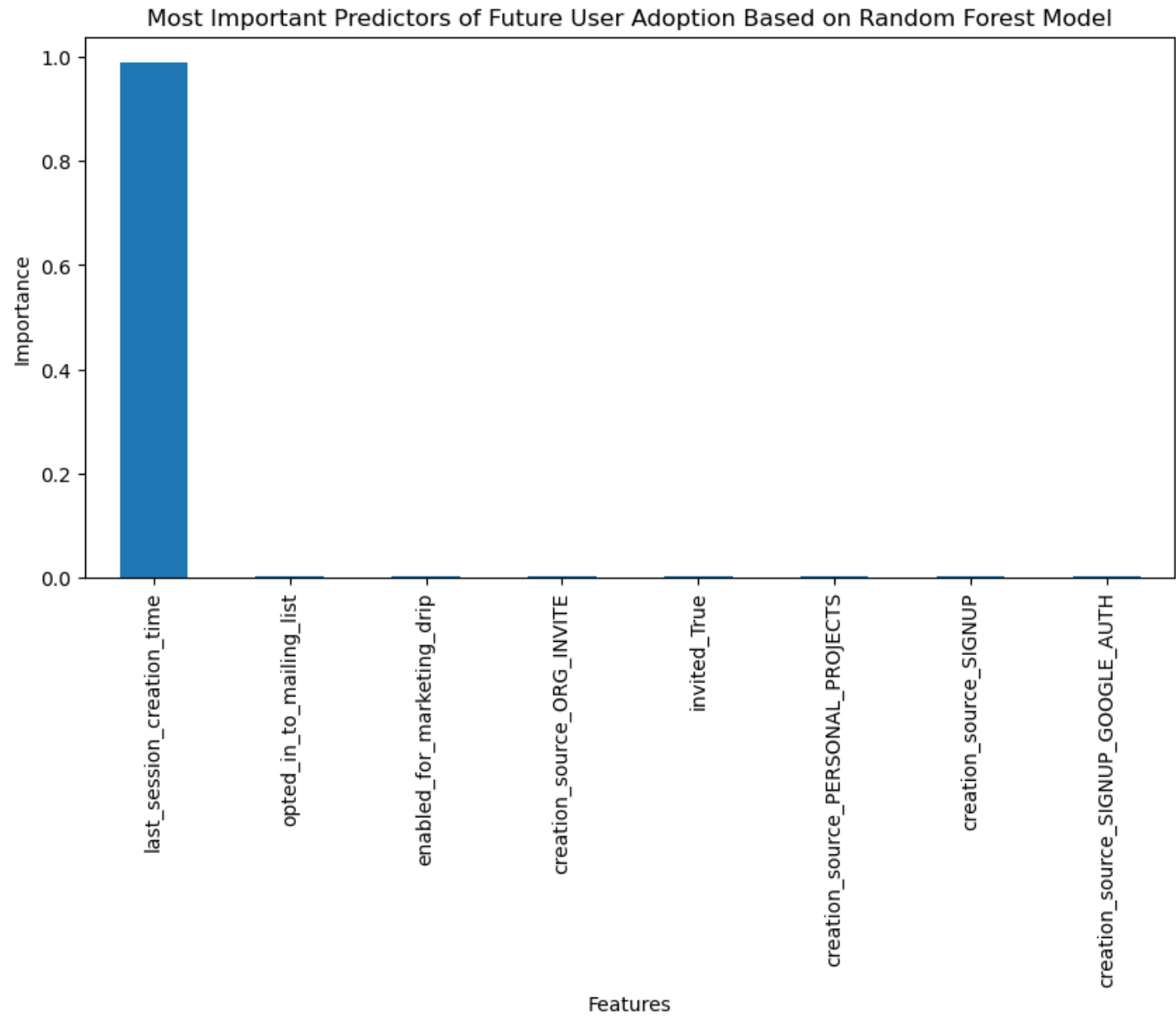
DISTRIBUTION OF ADOPTED VS. UNADOPTED USERS



PREDICTIVE MODELING

- Utilized a random forest classifier model
- The final model was had a 96.61% training accuracy, but only a 81.06% testing accuracy.
- The large gap between training and testing accuracy as well as the AUC score of 51.38% suggests that the model was overfitting and was not able to generalize well to the testing data.
- Significant class imbalance in target variable







RECOMMENDATIONS

The best predictors of future user adoption are:

- ``last_session_creation_time``: the most important predictor of future user adoption was when the user last logged in. This make sense since users who did not log in recently would probably not be adopted users. It also be noted that there was some missing data that we filled in with 0 for this variable.
- ``opted_in_to_mailing_list``: the next best indicator were for users who opted into receiving the mailing emails.
- ``enabled_for_marketing_drip``: users who enabled for the regular marketing drip were also more likely to be adopted.
- ``creation_source_org_INVITE``: another important indicator were users who created their account because they were invited by an organization.

A series of white, thin, overlapping geometric lines on a black background, creating a complex, abstract pattern on the left side of the slide.

THANK YOU

Chris Le