Predicting User Adoption

The objective of the following analysis is to identify the factors that help predict future user adoption. An 'adopted user' is defined as a user who has logged into the product on three separate days in at least one seven-day period.
The data comes from two files containing data on 12,000 users who signed up for the product in the last two years, including email address, how the account was created, when they created the account and how many times a user visited the site.

EDA

The first step was to identify the users who had logged into the product on three separate days in at least one seven-day period. This was done by grouping the user id and the number of visits, which helped create the target variable, indicating whether a user had more than 3 signups in a week (1) or less (0). There were 18% adopted users.
One of the hypotheses is that the month and weekday of account creation will help identify the users who were likely to become 'adopted users'. The exploration showed there was no significant difference among the weekdays.
The analysis showed that 36% of signups come from invites from an organization, followed by 21% sign ups via the website.

Random forest

The accuracy of the classification model was 61%. The model accurately identified 67% of non-adopted users. The model identified the month the account was created as the most significant factor in predicting user adoption, followed by the day of the week.