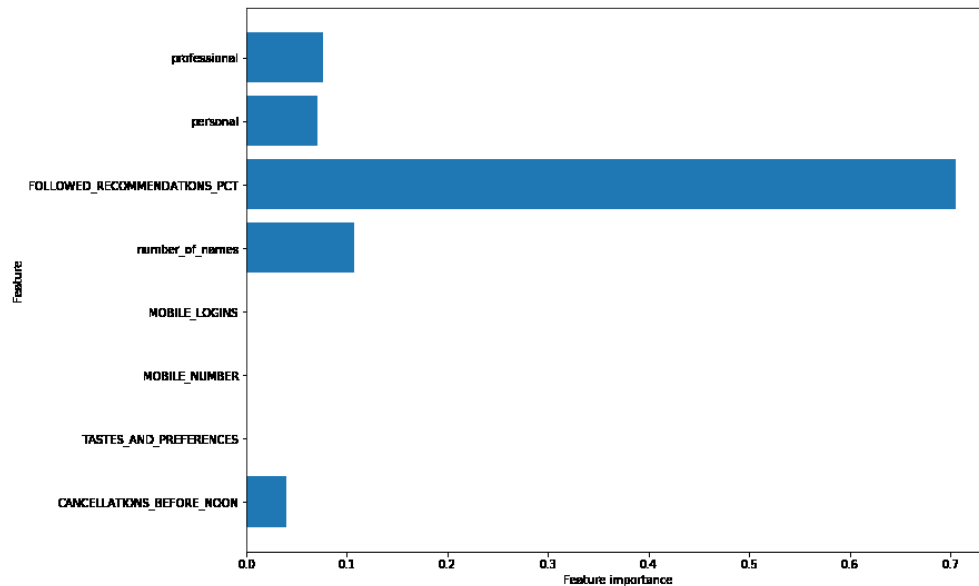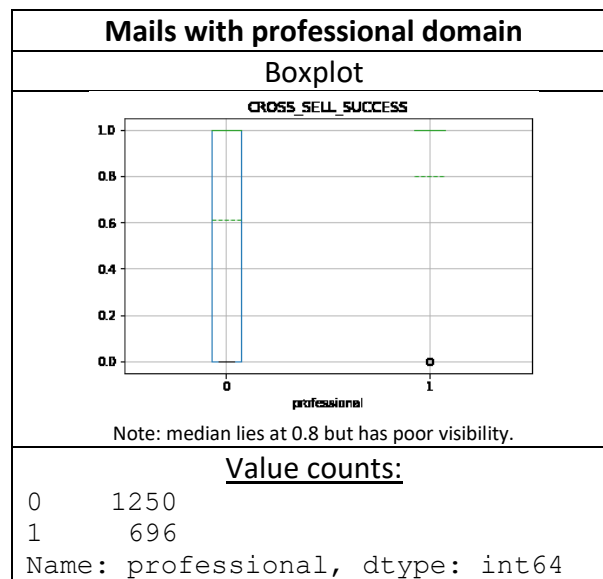## Data Analysis – Insights and Recommendations

FOLLOWED RECOMMENDATIONS PCT

Insight

Whether or not the customer followed the recommendations is of huge importance to the success of our Halfway There campaign, as we can see in the histogram above. This feature had by far the highest correlation (0.46) with CROSS_SELL_SUCCESS and therefore our campaign success as well. Customer willingness to engage with the product *and* provide data is crucial to utilize data to steer the company's products in the right direction. As seen with competitors like Freshly this can create a positive feedback loop and enable growth for our services including Halfway There (Buckley, 2020).

Personal data: mails (professional & personal), number of names

Mails with professional domain
Boxplot

Note: median lies at 0.8 but has poor visibility.

Value counts:

```
0    1250
1     696
Name: professional, dtype: int64
```

Insight

Our customer background data is important to our campaign success. The feature importance graph for the intercustomer relations found through number of names and the background of professional domain shows the relation of these features to campaign success.

Families need to buy greater quantities and are more open to well rounded product packages which include extra services, in our case the "Halfway There" service (Bigari, 2020) .

Studies support that working professionals are more open to various mealkit services and our own data analysis supports this as can be seen in the box plot of professionals(Branding, 2020).

Actionable recommendation

What stood out from the insights is the need for high quality customer data, the importance of customer engagement and the contribution power of professionals. Apprentice Chef needs to change its data acquisition process to prevent junk mails, as professionals mail domains have shown to be of higher importance for success. This will allow for custom tailored services that people *want*. This is with the goal of fostering and growing customer engagement.

Engaged customers that FOLLOWED_RECOMMENDATIONS_PCT proved to be of importance for campaign success and need to be isolated for targeted marketing for these specific added-services such as Halfway There.

It is recommended that Apprentice Chef works on data acquisition and customer relationship management with the goal of creating a positive feedback loop of high quality data and engagement to promote consumer enjoyment. This will also lead to increasing meal ratings which was proven to be of importance to revenue in our earlier data analysis (Palmer, 2020).

Finally, as the contribution of professionals to success is undeniable, we recommend a campaign giving discounts among colleagues signing up with company mails. This can entail ordering a larger amount of meal packages cheaper to avoid rapid customer turnover after initial buy in.

AUC

The Gradient Boosting Classifier Model outperformed all other models by having an **AUC of 0.7825** in combination of a Training and Testing Accuracy respectively of 0.851 and 0.817.

Buckley, E. (2020). How Freshly Uses Customer Data to Influence Meal Development — In Real Time. Retrieved 15 March 2020, from https://www.freshly.com/blog/articles/how-freshly-uses-customer-data-to-influence-meal-development

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Bigari, B. (2020). Is Freshly Perfect For Families? Our Verdict (2020) - Fractus Learning. Retrieved 15 March 2020, from https://www.fractuslearning.com/freshly-review/

Branding, A. (2020). The Best Meal Kit Food Delivery Services of 2020. Retrieved 15 March 2020, from https://www.reviewed.com/cooking/best-right-now/the-best-meal-kit-delivery-services

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Palmer, D. (2020). How HelloFresh uses big data to cook up millions of custom meals | ZDNet. Retrieved 15 March 2020, from https://www.zdnet.com/article/how-hellofresh-harnesses-big-data-to-cook-up-millions-of-custom-meals/