Bank Marketing Data

The Outliers
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Background and Insights

RFM Analysis and Profiling

Direct marketing in the financial services industry revolves around extensive profiling of consumers based on recency, frequency and monetary analysis:

- How frequently a consumer purchases a certain product (personal loans, direct deposits etc,)
- How frequent do the purchases happen
- What is the transaction/balance profile of customers

Predictive Modelling Need

Propensity and risk score modeling are the two more popular focus areas of financial services companies including the bureaus for target marketing

Main business need area in direct marketing for personal financial products: Successful lead generation and ranking of best performing individuals based on propensity scores off of credit bureau lists of 300M+ individuals from the entire country => Challenging with binary response/conversion models given response rates, imbalances, and variety of segmentations

Key Insights

Punchline of the study for us:

The Portugese Banks or the U.S banks, the data is telling us the base criteria for lead segmentation are consistent!

- Balance amount is exceptionally important (1400s and above increases likelihood of subscription)
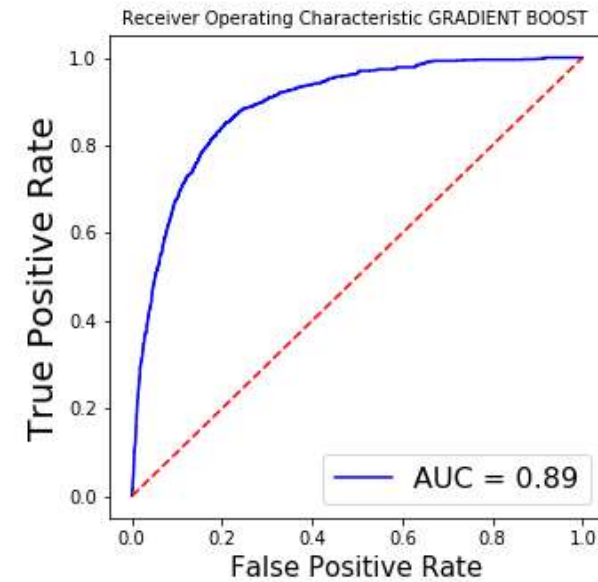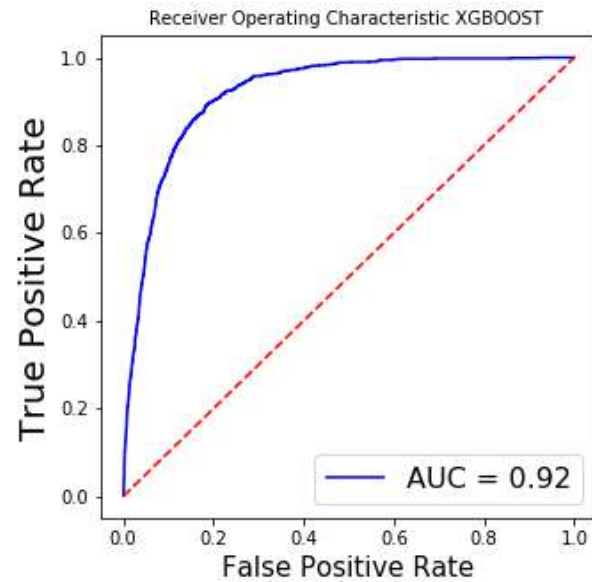
Did you know the bureaus segment further with unsecured and revolving installment balance and increase their accuracy significantly? Anyone guess what the updates on the Portugese bank marketing data were in terms of data collection?

- Past personal loan sign ups: frequency of signups
- Contact time and recency of receiving a financial service
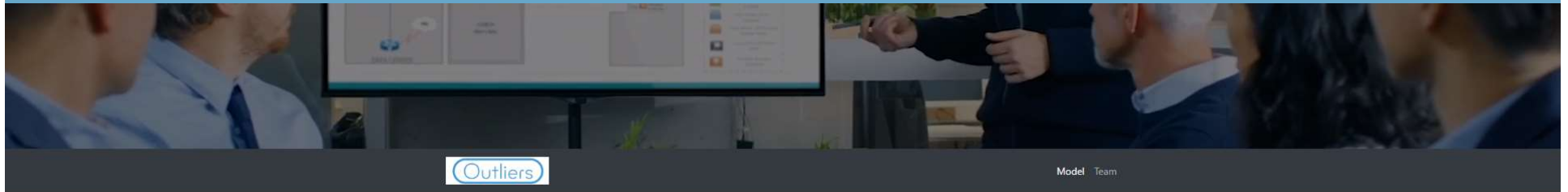- Age: important segmentation attribute

BUSINESS

Accuracy: Not an appropriate measure in this industry
Best kind of analysis for translating results to the business is by lift analysis of de
ciles

ROC Curves are the best option

Receiver Operating Characteristic XGBOOST

AUC = 0.92

Receiver Operating Characteristic GRADIENT BOOST

AUC = 0.89

Our App: Outlier

Score Assesment

Age		Balance	
Campaign		Number Previous Contacts	
Duration		Past Credit Defaults	Yes
Occupation	Choose...	Marital Status	Choose...
Education	Choose...	Days Since Last Reach Out	Choose...
House Ownership	Yes	Past Personal Loan Conversions	Yes
Contact Preference	Choose...	Outcome of Last Reach Out	Choose...
Last Contact Day of Month	Choose...	Month	Choose...

Generate

BUSINESS