Portuguese Banking

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Statement

Methodology

- UCI: Machine Learning Repository

- Logistic Regression

- Libraries
  - Python
  - Pandas
  - Scikit-Learn
  - Seaborn
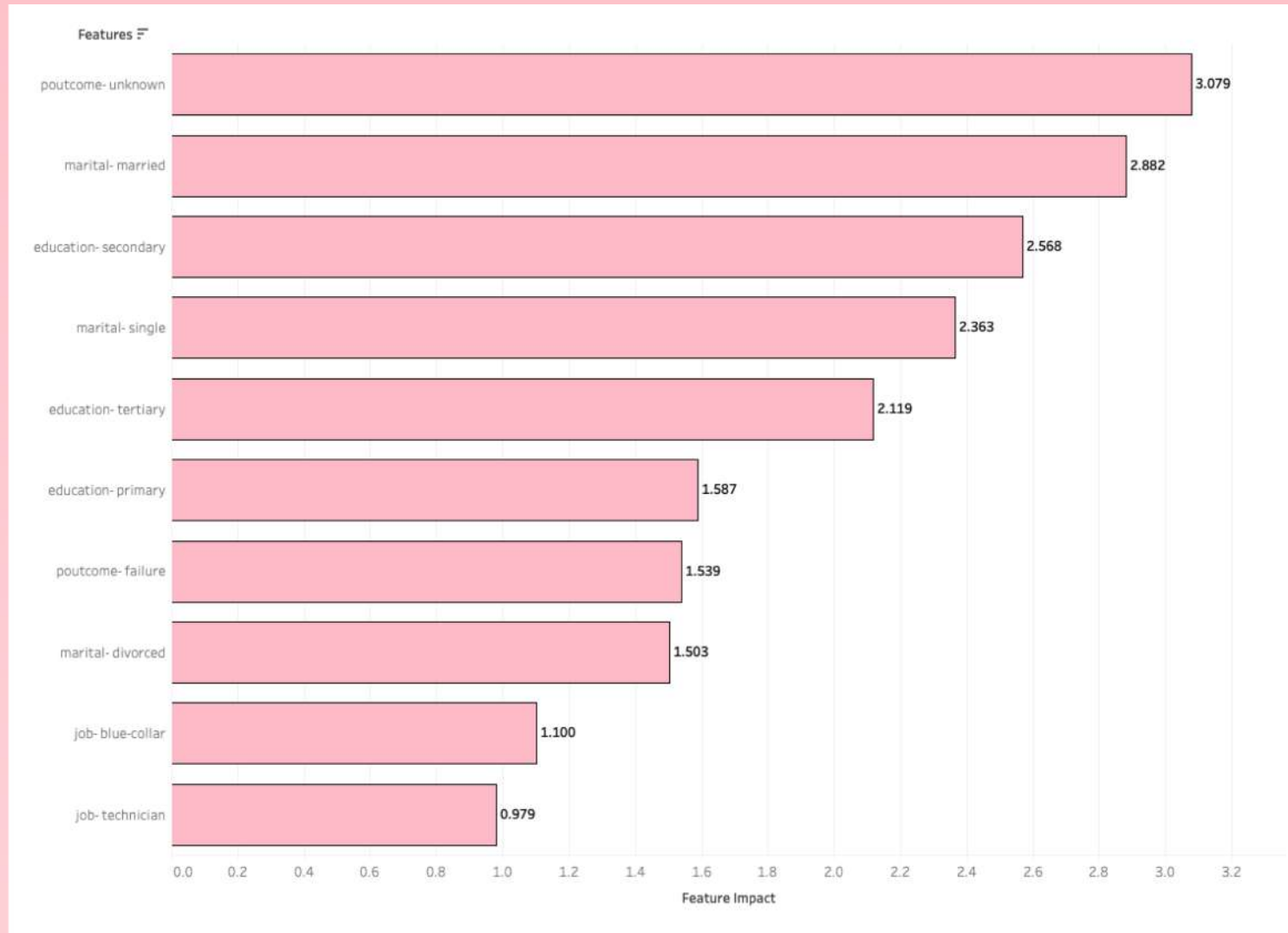
- Tableau

Function & Objective

- Direct marketing campaign from a Portuguese financial institution.

- Campaigns were conducted via phone calls

- Classify if a client will subscribe to a term deposit (i.e CD, Guaranteed Investment Certificate, Bond, etc.)*
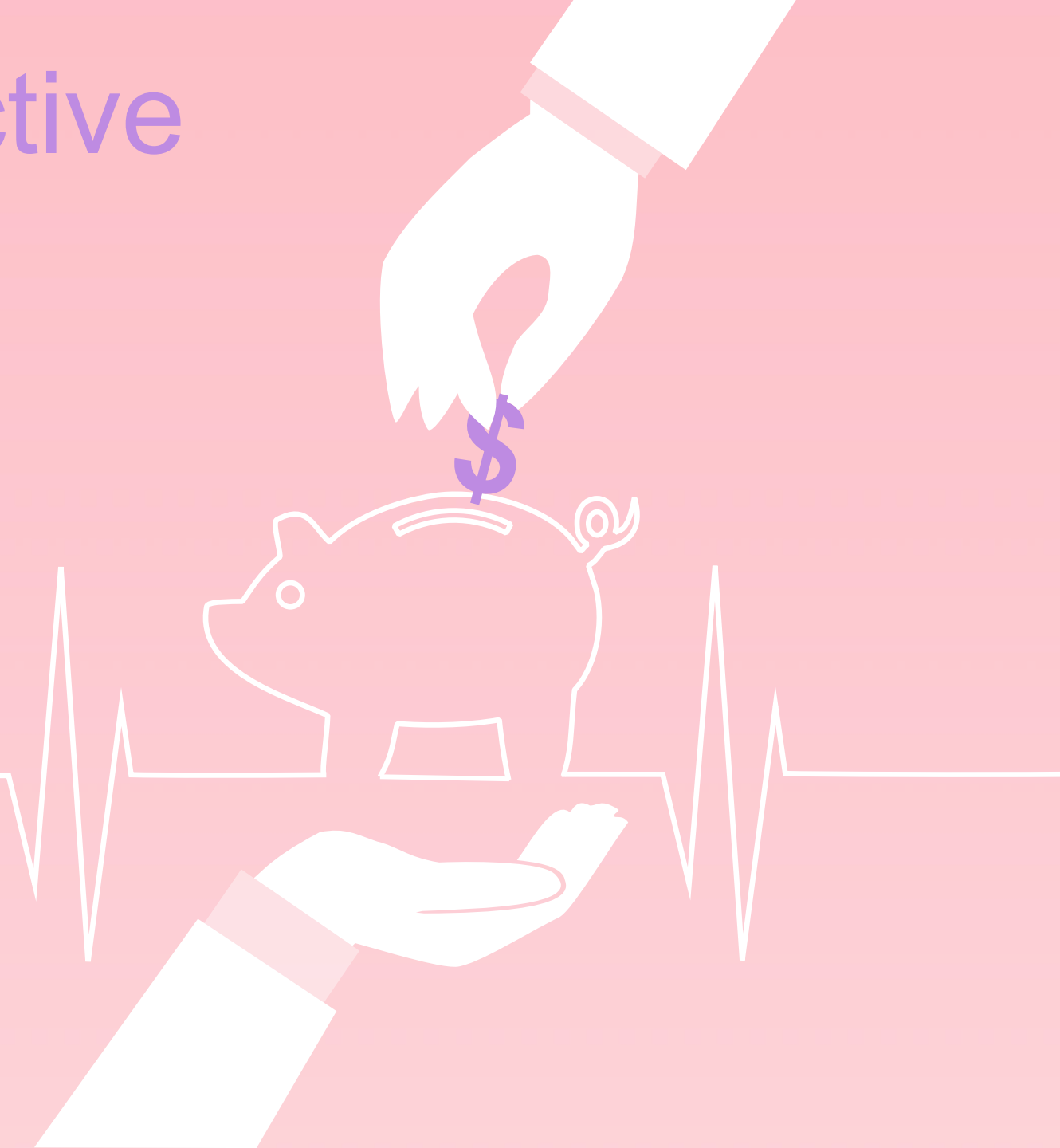
*Class Imbalance with target value: leveraged SMOTE Oversampling.
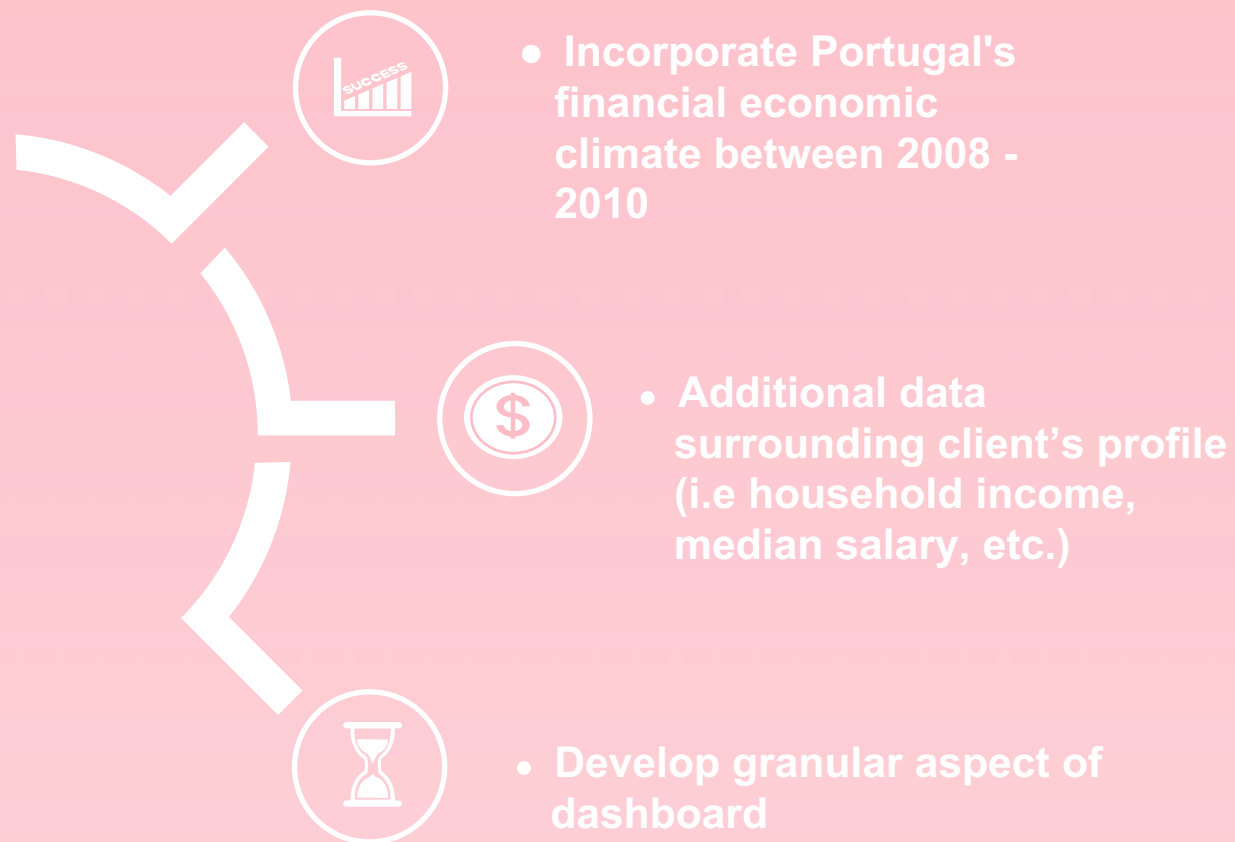Machine Learning Repo: UCI

Feature Importance

Model Predictions

- **Decision Threshold: 0.1**

- **Recall: The model is currently predicting the positive class (Yes) correctly at a ratio of .80**

- **The accuracy ratio of the model is .75**

- **F1 score: .43**

Confusion Matrix

Actual Accounts		3,402	824
	Yes		
	No	8,151	23,792
		Yes	No

Predicted Accounts

Future Work

- **Incorporate Portugal's financial economic climate between 2008 - 2010**

- **Additional data surrounding client's profile (i.e household income, median salary, etc.)**

- **Develop granular aspect of dashboard**

Any Questions?

THANK YOU

Resources: