

Predicting Customer Subscription to Financial Products

Capstone Project

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Overview

Client Objective

- Increase Term Deposit Revenue
- Marketing Efficiency

My Goals

- Identify Strategic Opportunities
- Predict Customer Sign Up



Outline

- Business and Data Understanding
- Modeling
- Evaluation
- Strategic Recommendations
- Next Steps

Business Understanding

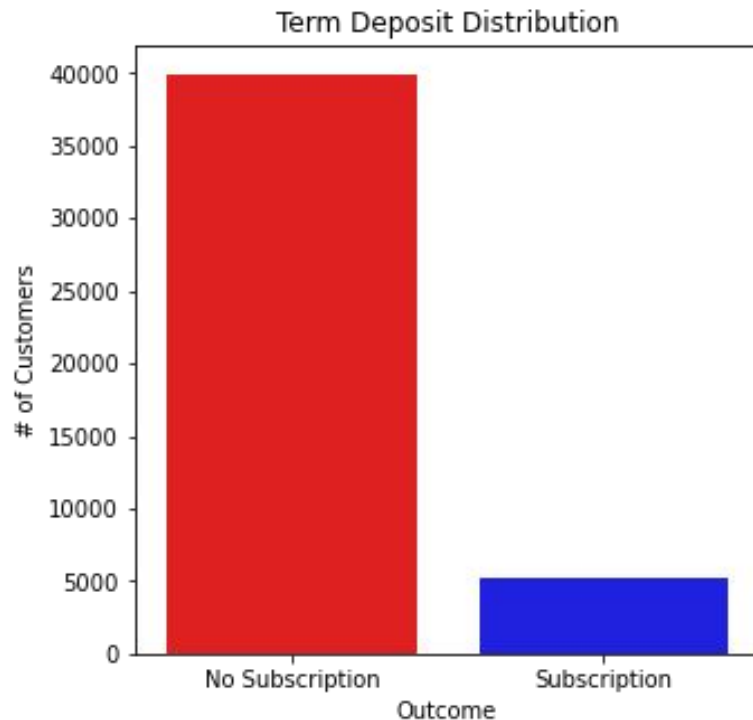
What's The Problem?

- Niche Product Offering
- Expensive Customer Acquisition

Data Understanding

What Are We Working With?

- Banking Dataset - Marketing Targets
- 45,211 Customers
- Demographic Attributes
- Previous Results $\sim 12\%$



Modeling

Type

- Classification
- Gradient Boost

Use Cases

- Target Marketing / Promotions
- Resource Allocation
- Automation

Evaluation

Metrics

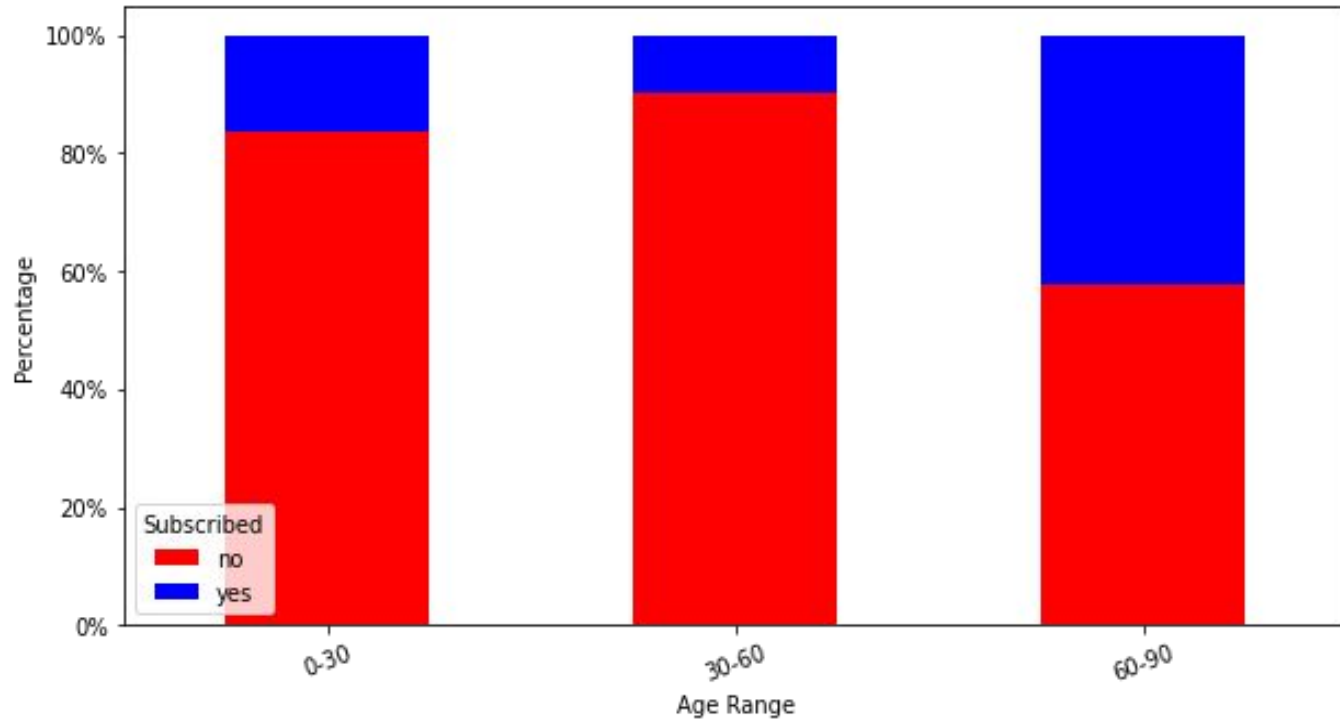
- Accuracy ~ 91%

Key Insights

- Age
- Employment
- Mortgage Status

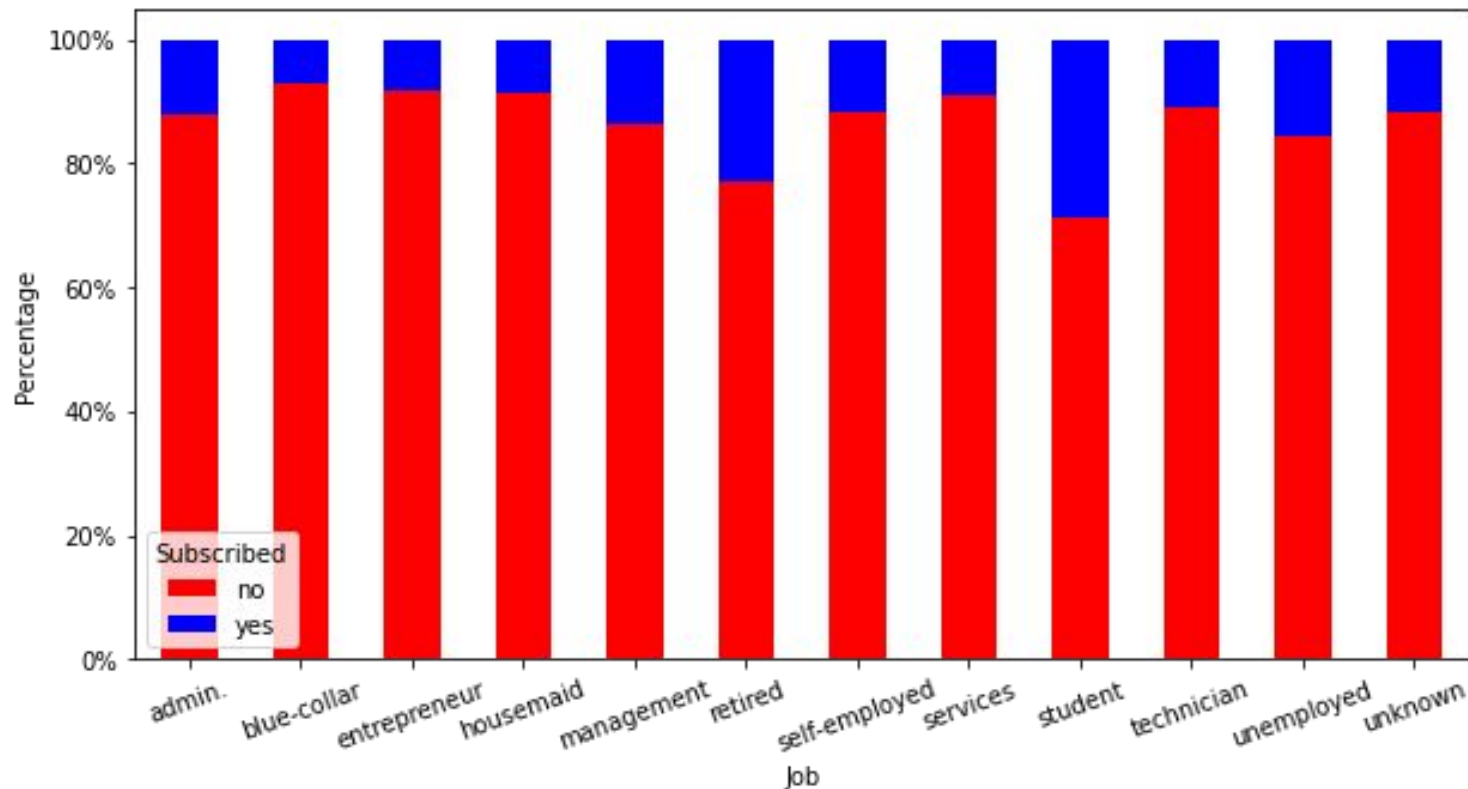
Age

Term Deposit Subscription by Age Range



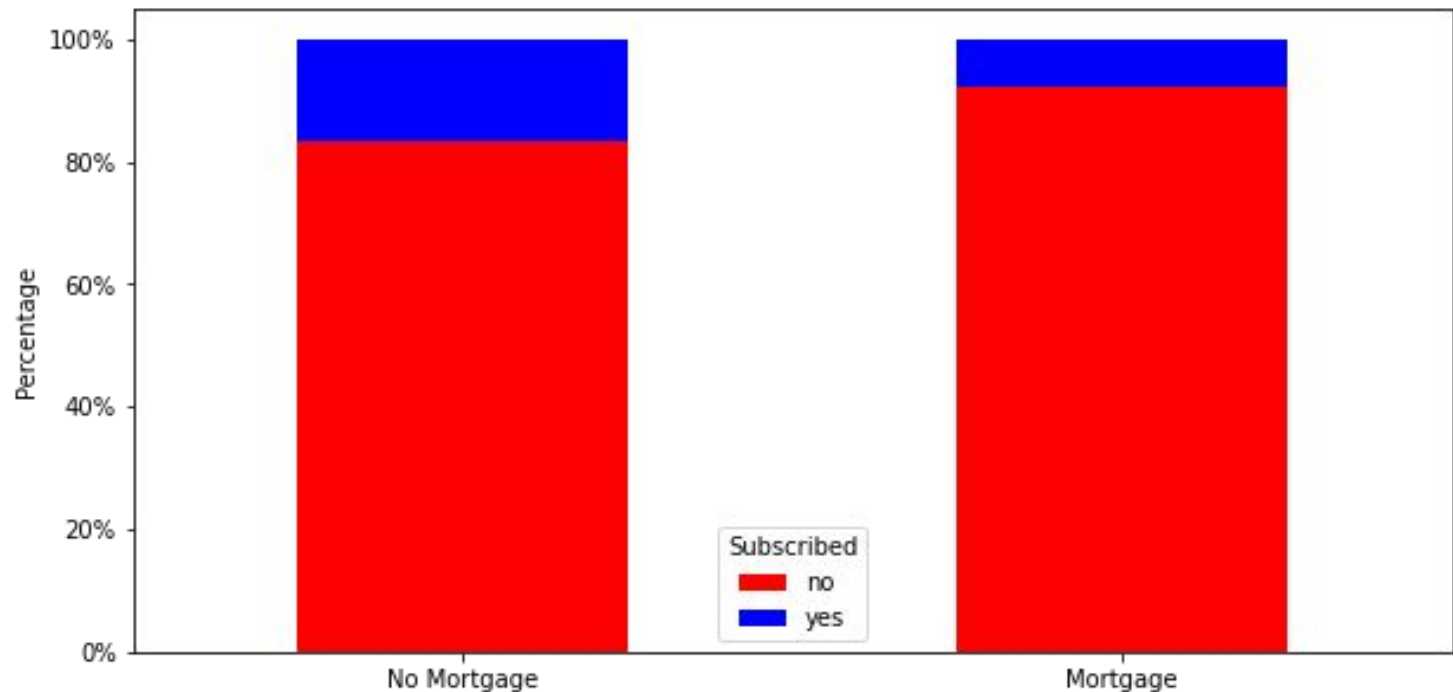
Employment

Term Deposit Subscription by Job Type



Mortgage

Term Deposit Subscription by Mortgage Status



Strategic Recommendations

- Group Customers by Opportunity
- Lean & Dedicated Call Center
- Automate Low Yield Email
- Flexible Deposits



Limitations & Next Steps

- Fine Tuning
- Continued Data Collection
- Streamlit Model App

Thank You!

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Github Link:

<https://github.com/zchern/Predicting-Customer-Subscription-to-Financial-Products>

