

A high-contrast silhouette image showing a hand from the left, wearing a watch, placing a ballot into a dark ballot box. The background is white, and the ballot box is a solid black shape at the bottom.

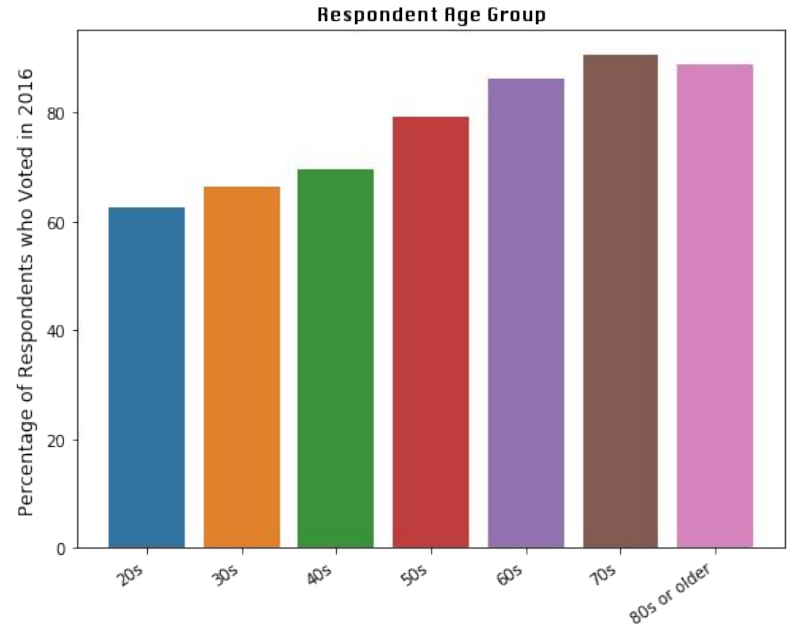
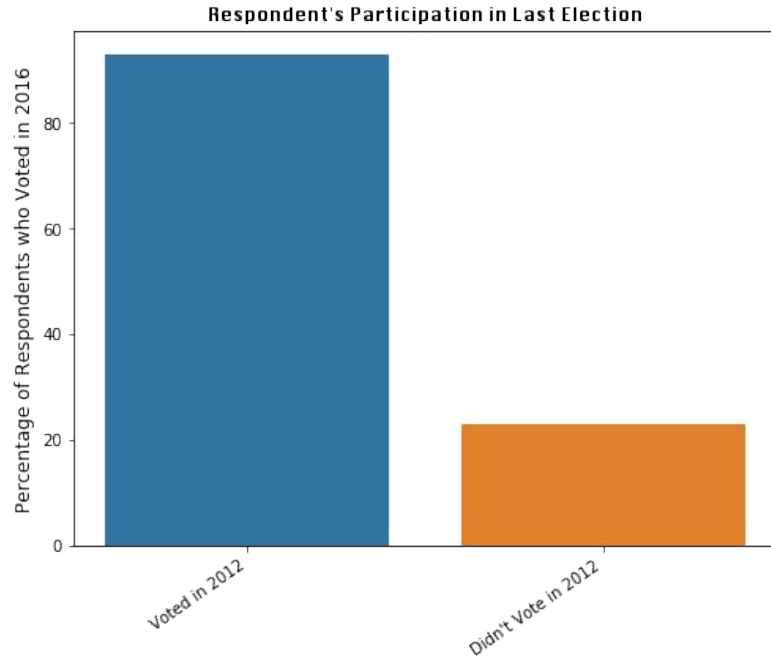
Predicting Voter Participation with Results from the General Social Survey

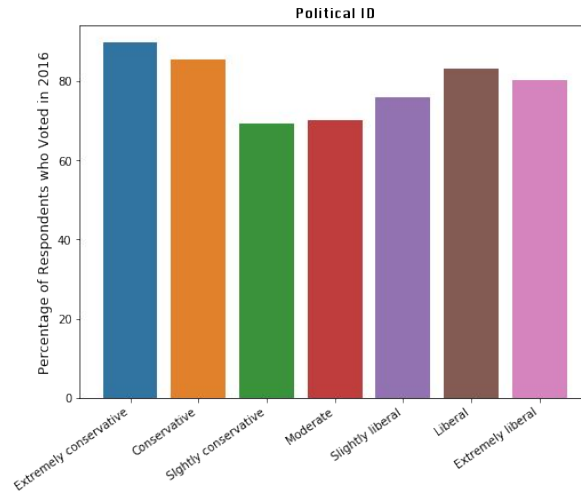
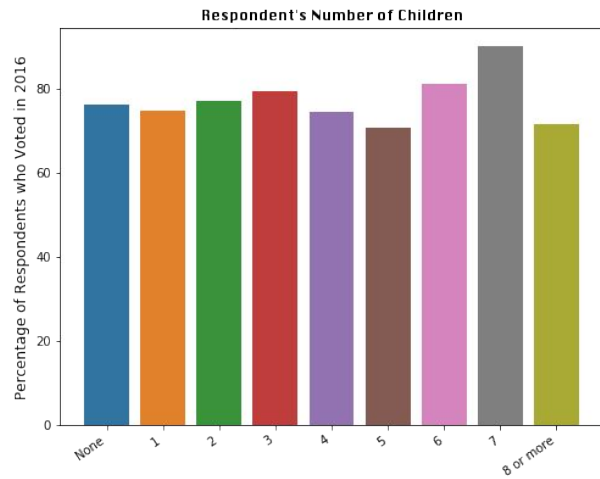
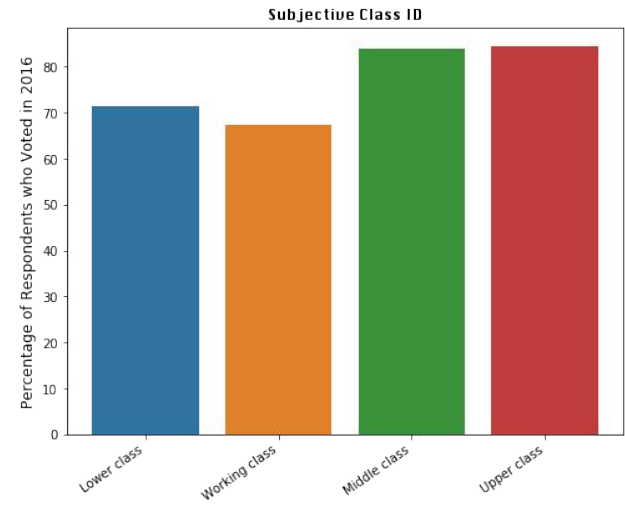
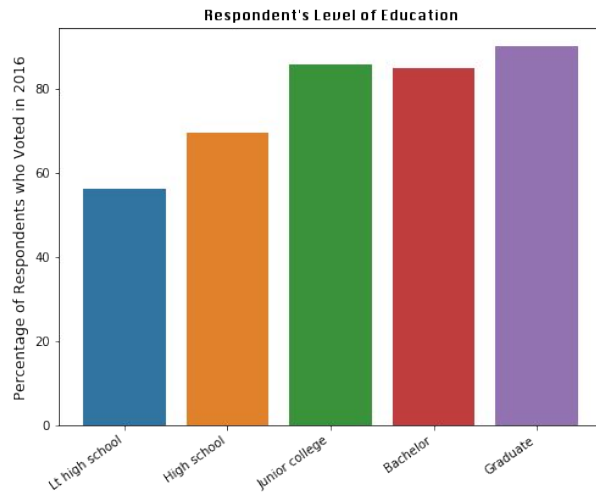
Avonlea Fisher
October 2020

The Data

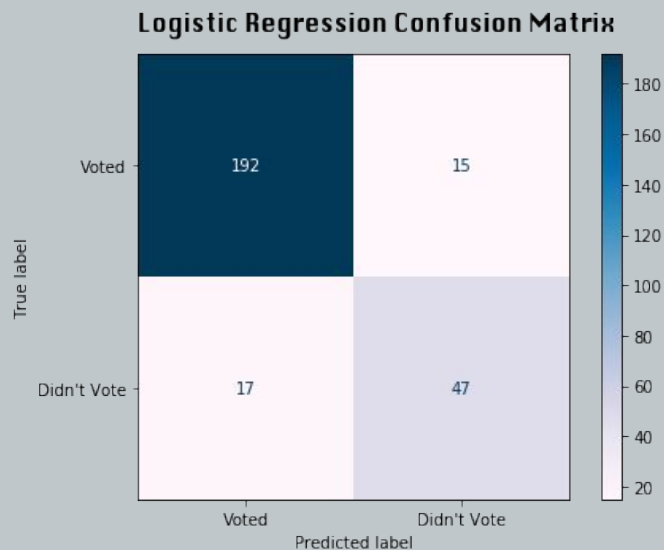
- 2018 General Social Survey (GSS)
- Variables: respondents' participation in last two elections, socio-economic info, and political attitudes
- After data cleaning:
 - 1,083 rows (survey respondents)
 - 18 columns (survey questions)
 - only eligible voters who remembered voting history

Percentage of 2016 Voters by Predictor





Best Classification Model: Logistic Regression

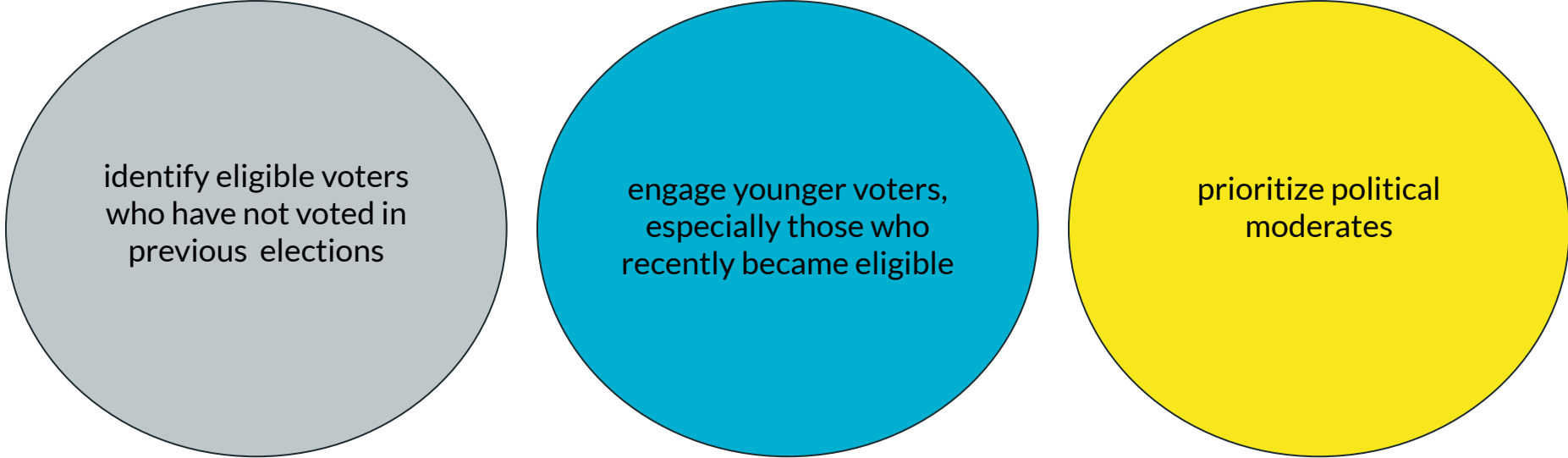


Accuracy: 88%

True Positive Rate: 73%

Recommendations

To maximize the number of potential non-voters that you reach:



identify eligible voters
who have not voted in
previous elections

engage younger voters,
especially those who
recently became eligible

prioritize political
moderates

Questions for Future Work

- Which voter engagement strategies are most effective at increasing voter turnout?
- What are the most significant barriers to voting among eligible voters who don't vote, but report an interest in doing so?

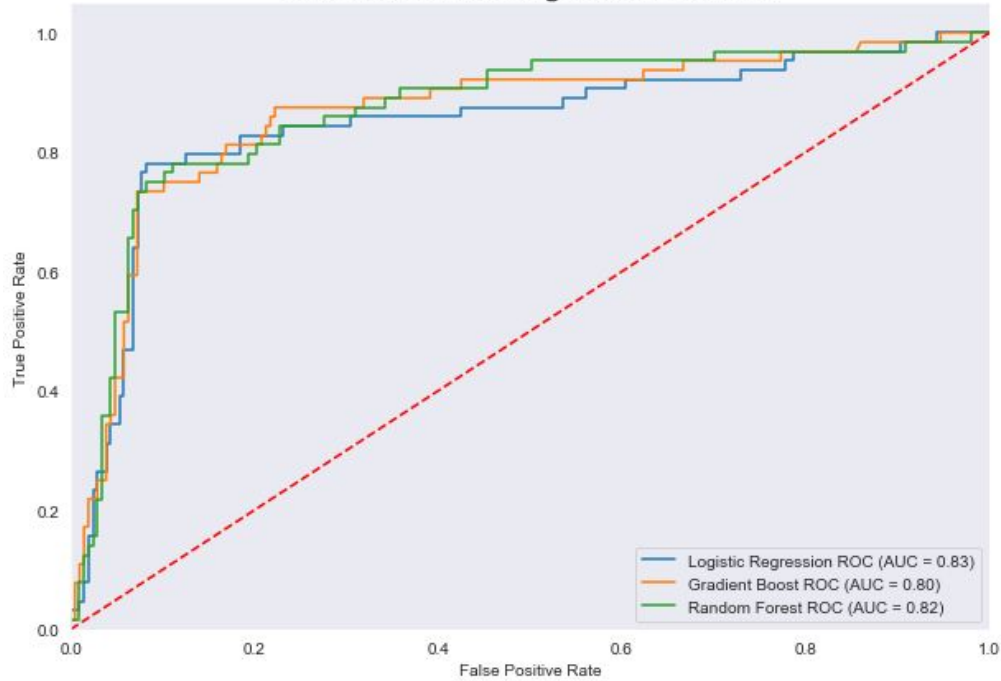


Thank you!

Appendix



Receiver Operating Characteristic



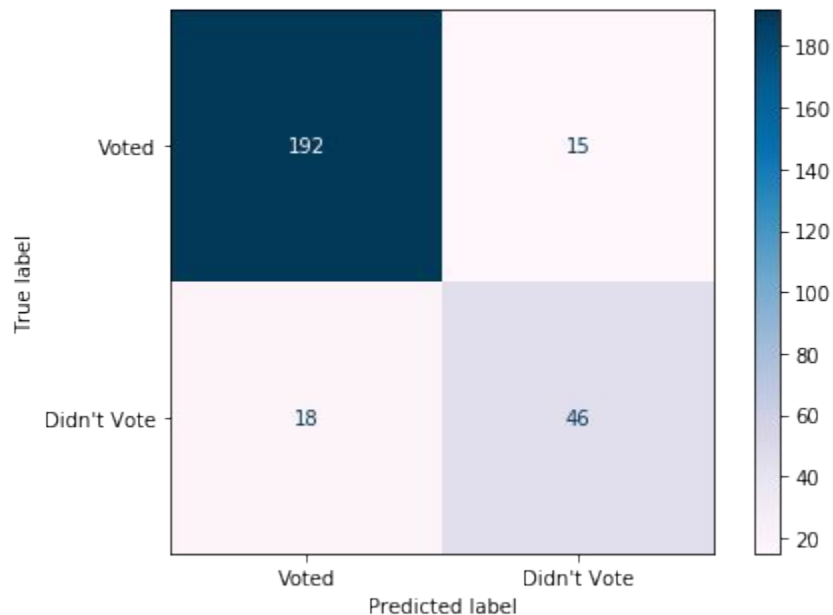
Recall Scores

Logreg: 0.734

Gradient Boost: 0.672

Random Forest: 0.719

Random Forest Confusion Matrix



Accuracy: 0.878

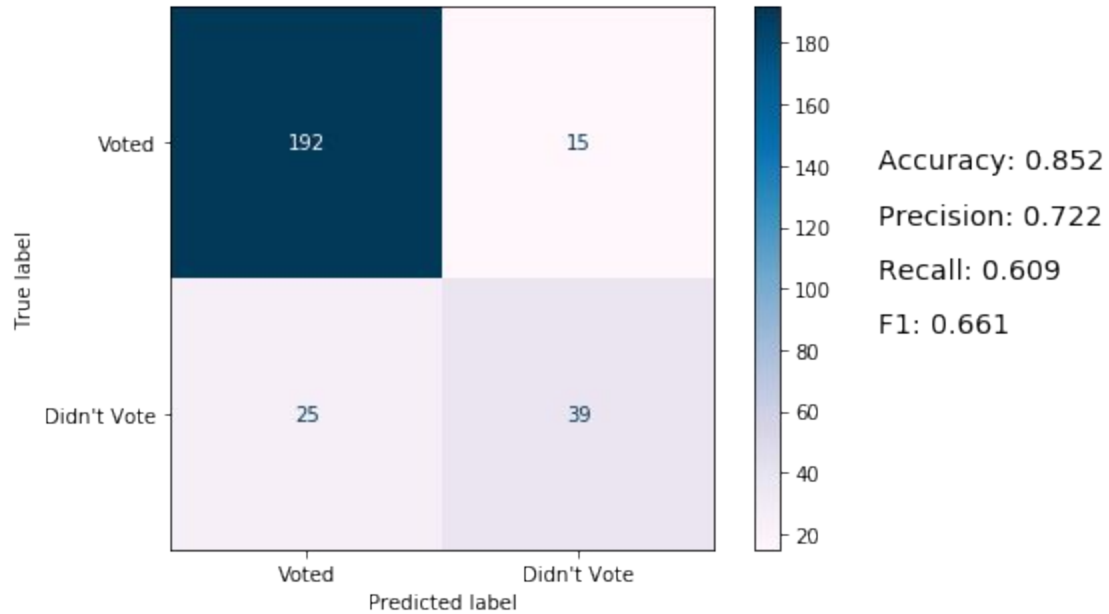
Precision: 0.754

Recall: 0.719

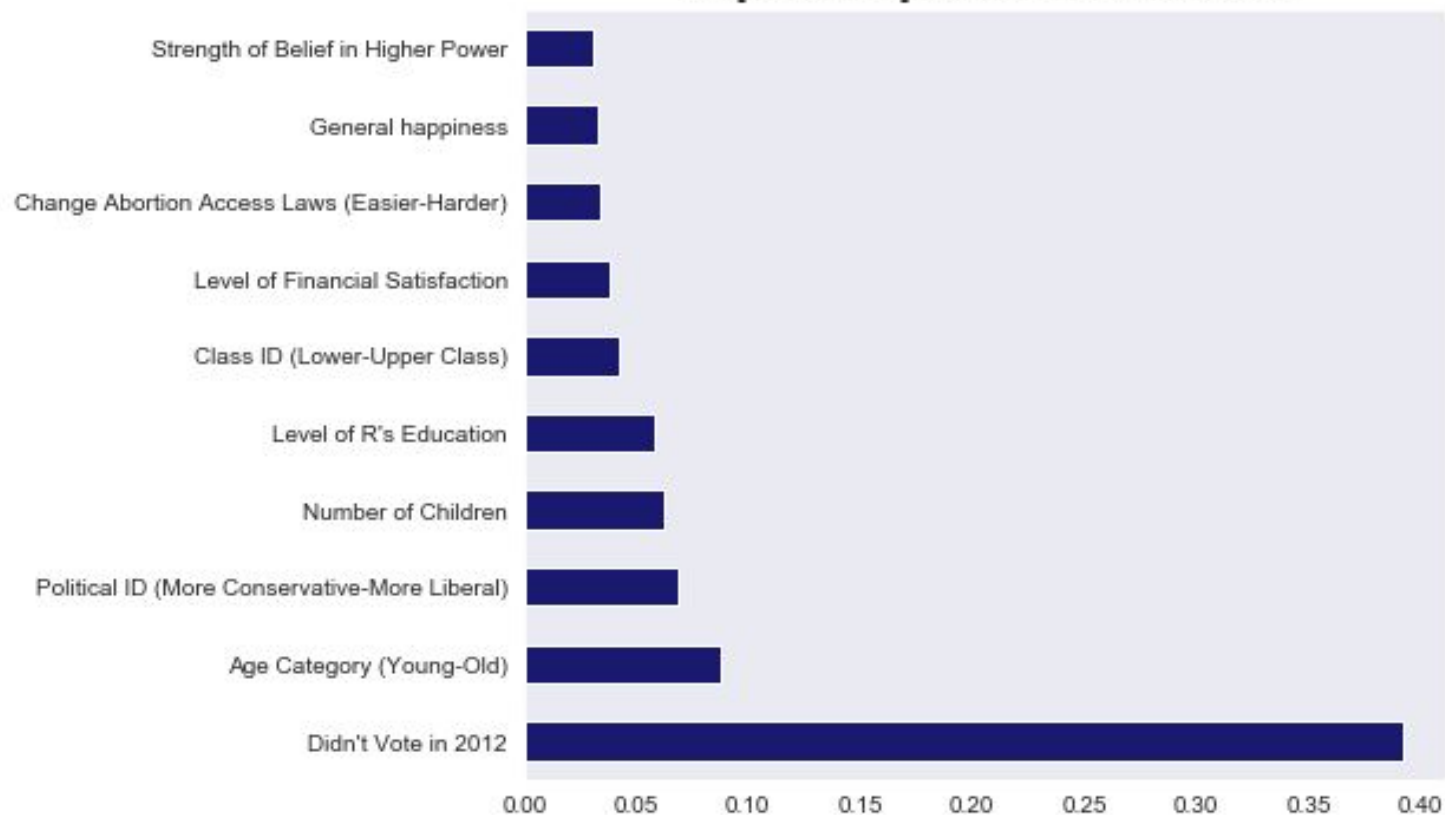
F1: 0.736



Gradient Boost Confusion Matrix



Top 10 important features



Credits

- Presentation theme from [PoweredTemplate.com](https://www.PoweredTemplate.com)
- Mail-in ballot image by Tiffany Tertipes on [Unsplash](https://www.Unsplash.com)

