Fundraisers



Hsiao Yu Hsu, Hsin Yu Pan, Mengwei Li, Xuan Mai Nguyen, Zinnia Arshad

Business Problem



Consulting service for crowdsourcing platforms



22.4% successful campaigns in 2019



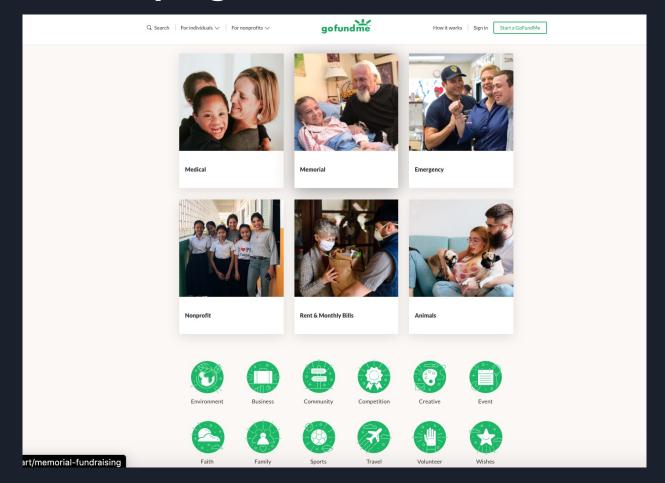
Non profit campaign raises an average of \$9,237

1 in 3 people donated to their favorite charity in 2015

Data Source

Scraping URLS	Scraping Info for each Fundraisers	Data Cleaning
- Scraped 18 categories on GoFundMe.com	 Scraped each fundraisers from Urls obtained Title, Date Created, Amount Raised, Goal Amount, Donors, Shares, Followers, Tags, and Description 	 Impute missing data Change appropriate data types Convert to US currency Scale the dataset

Data Scraping



Data Scraping

Help me get this brain tumor out



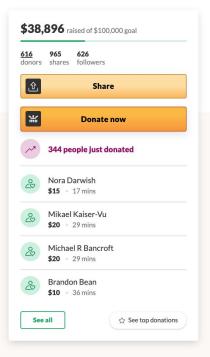
Matthew Ruiz is organizing this fundraiser.

Created 2 days ago | 🕥 Medical, Illness & Healing

Hola.

In August of 2019, I started experiencing what seemed to be ear infections. The middle of my left ear began to fill with liquid and my hearing slowly deteriorated. By the summer of 2020, hearing in my left ear ceased to exist and was replaced with tinnitus. Tinnitus is a high-pitched <u>sound</u> similar to a dog whistle. Unfortunately, this sound lives in my ear and is at max volume most days.

In the first week of September, I begun to see double and experienced severe headaches. There were two of everything. I quickly lost the ability to drive and had to Read more



Data Pre-processing

- Missing values: Amount Raised, Followers, Donors, Shares
- Convert currency
- Change appropriate data types
- Scale the data
- Remove outliers (Goal Amount)
- Remove highly correlated variables

Statistical modeling

We built a logistic regression to figure out the relationship between the success and goal amount.

Target variable: Success or not(binary variable)

If raised amount is greater than goal amount, we define it successful and assign it '1'

If raised amount is less than goal amount, we define it not successful and assign it '0'

Independent variables:

(1) variable of interest: Goal fundraising amount for each case

(2) control variables: Tags/ Numbers of Shares

Interpretations

```
> summary(reducedmodel3)
call:
glm(formula = Success ~ Tags + Goal.Amount + Shares, family = binomial,
    data = data)
Deviance Residuals:
    Min
              10 Median
                                3Q
                                        Max
-3.0154 -0.9713 -0.6949
                            1.0994
                                     6.9287
Coefficients:
                                      Estimate
                                                   Std. Error z value
                                                                                  Pr(>|z|)
(Intercept)
                                  0.3935323312
                                                 0.2857172059
                                                                1.377
                                                                                  0.168404
TagsAnimals & Pets
                                -13.9529420602 378.5926338897 -0.037
                                                                                  0.970601
                                                 0.3353719327 -0.423
TagsBabies, Kids & Family
                                 -0.1418119942
                                                                                  0.672405
TagsBusiness & Entrepreneurs
                                 -0.2308246211
                                                 0.3261756126 -0.708
                                                                                  0.479150
TagsCelebrations & Events
                                  0.0282123567
                                                 0.3511917325
                                                                0.080
                                                                                  0.935972
TagsCommunity & Neighbors
                                  0.0741160402
                                                 0.3343183188
                                                                0.222
                                                                                  0.824553
TagsCompetitions & Pageants
                                 -1.1230985402
                                                 0.3526010963 -3.185
                                                                                  0.001447 **
TagsCreative Arts, Music & Film -0.5088916851
                                                 0.3419737511 -1.488
                                                                                  0.136724
TagsDreams, Hopes & Wishes
                                                 0.3441981990 -1.372
                                                                                  0.170171
                                 -0.4721208046
                                                 0.3384352010 -1.415
TagsEducation & Learning
                                 -0.4788030572
                                                                                  0.157140
TagsEnvironment
                                 -1.2380135657
                                                 0.3526784053 -3.510
                                                                                  0.000448 ***
TagsFunerals & Memorials
                                  0.2796004597
                                                 0.3371170430
                                                                0.829
                                                                                  0.406886
TagsMedical, Illness & Healing
                                  0.9578733081
                                                 0.3552124636
                                                                2.697
                                                                                  0.007005 **
TagsMissions, Faith & Church
                                 -1.2037866908
                                                 0.3623871703 -3.322
                                                                                  0.000894 ***
TagsSports, Teams & Clubs
                                 -0.6327975222
                                                 0.3473757030 -1.822
                                                                                  0.068508 .
TagsTravel & Adventure
                                 -0.1201062100
                                                0.3518840612 -0.341
                                                                                  0.732860
Goal. Amount
                                 -0.0000048986
                                                 0.000006088 -8.047 0.00000000000000851 ***
Shares
                                  0.0000405172
                                                 0.0000104254
                                                                3.886
                                                                                  0.000102 ***
```

Limitations

Identifying Independent Variables.

• To predict based on a set of independent variables

Limited Outcome Variables.

Cannot predict continuous outcomes.

Independent Observations Required.

• Each data point be independent of all the others.

Overfitting the Model.

Sampling bias

Conclusion & Recommendation



Reference

- 1. https://www.gofundme.com
- 2. https://www.fundera.com/resources/crowdfunding-statistics#:~:text=t o%20500%20words.-,Team%2Ddriven%20crowdfunding%20campai gns%20raise%2038%25%20more%20than%20solo%20campaigns,of %2011%20days%20to%20prepare
- 3. https://nonprofitssource.com/online-giving-statistics/crowdfunding/