



AUGUST 2019

Startup Success

Mining opportunity in the uncertainness of the tech sector.

The background of the slide features a collage of US dollar bills, including \$100 and \$500 denominations, with various serial numbers and signatures visible. The bills are layered and slightly blurred, creating a textured, financial theme.

Optimizing for Success



*As a CEO, what can I do to
ensure my business
successfully exits?*

The Dataset

Data is a snapshot of San Francisco based startups founded after 2009.



98.04%

precision



XGBoost Classifier

97.81%

precision



Random Forest Classifier

Looking Deeper


Extracting insights from ML Classifiers.

Random Forest Feature Importance:

Total Funding Amount	53.6%
Number of Investors	6.2%
Days Since Founded	3.7%

Logistic Regression Coefficients:

Total Funding Amount	2.99×10^{-08}
Number of Investors	-7.09×10^{-12}
Days Since Founded	-2.53×10^{-09}



**“Valuations are inflating,
leading some people to worry
that investment decisions are
being guided by something
venture capitalists call FOMO
—the fear of missing out.”**

The New York Times

FOMO is Real

How to incite FOMO:

or how to Elizabeth Holmes your way to success



Create energy



Shorten your timeline



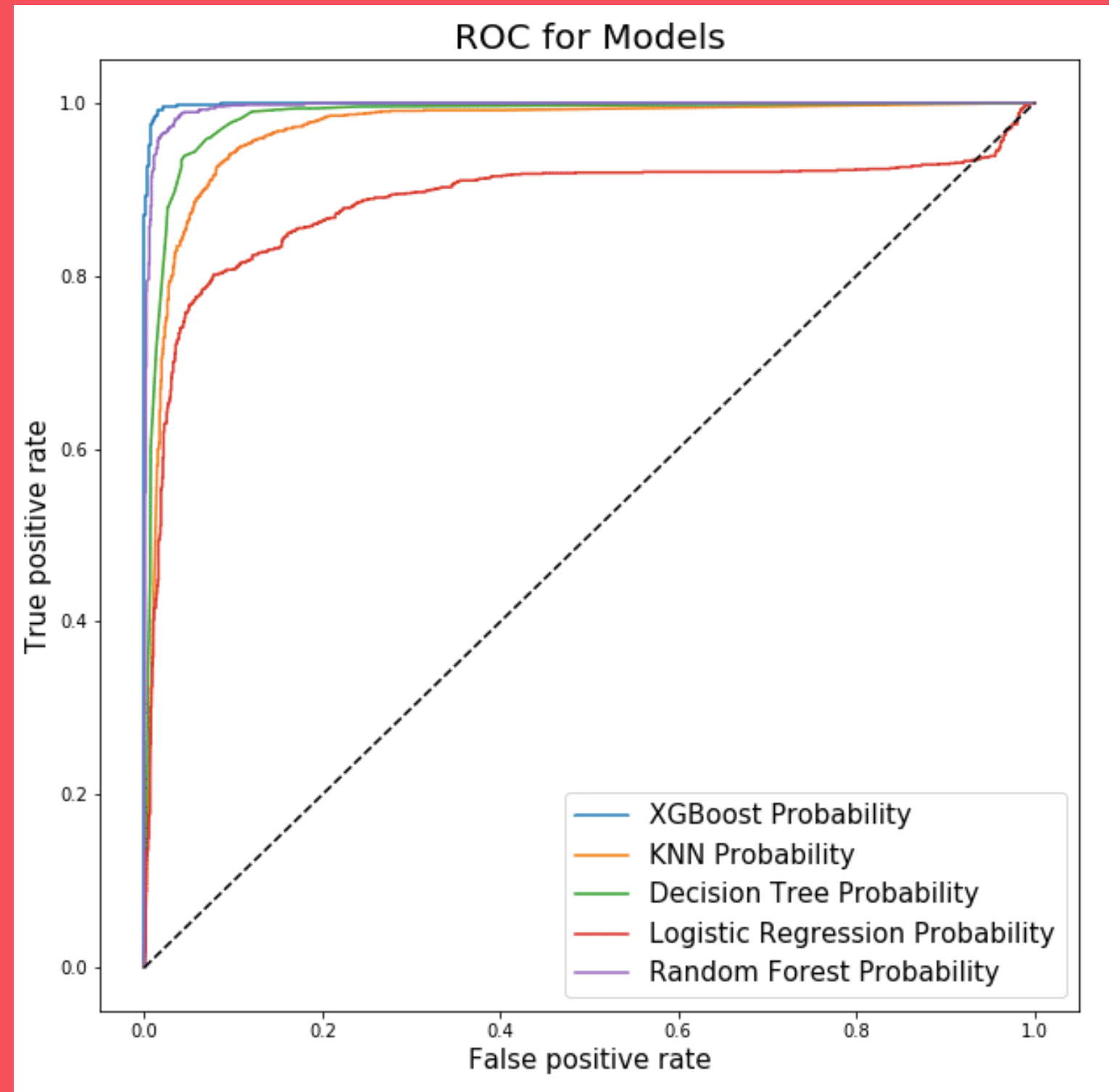
Max funding per
round

FOMO is Real

Appendix

- <http://home.uchicago.edu/~buchak/papers/fomo.pdf>
- <https://mentorphile.com/2019/06/19/why-raise-money-now/>
- <https://techcrunch.com/2019/05/29/fundraising-101-how-to-trigger-fomo-among-vcs/>
- <https://www.nytimes.com/2015/05/23/technology/overvalued-in-silicon-valley-but-not-the-word-that-must-not-be-uttered.html>

Appendix



Randomized Search Params

```
random_forest_param = {'n_estimators': [4, 5, 6, 7, 8, 9],  
                        'max_features': ['log2', 'sqrt', 'auto', None],  
                        'criterion': ['entropy', 'gini'],  
                        'max_depth': [2, 3, 5, 10],  
                        'min_samples_split': [2, 3, 5],  
                        'min_samples_leaf': [1, 5, 8],  
                        'class_weight': ['balanced', 'balanced_subsample', None]}
```

Appendix

Random Forest Feature Importance

total_funding_amount	0.536139
advertising	0.073845
number_of_investors	0.061834
days_since_founded	0.037323
software	0.034311
information_technology	0.030977
biotechnology	0.030810
number_of_lead_investors	0.023072
health_care	0.021152

days_since_last_funding	0.019810
last_funding_amount	0.019093
data_and_analytics	0.017487
number_of_founders	0.011200
education	0.010492
mobile	0.008526
hardware	0.006794

consumer_electronics	0.002910
consumer_goods	0.002776
real_estate	0.002636
energy	0.002399
commerce_and_shopping	0.002055
media_and_entertainment	0.001757
messaging_and_telecommunications	0.001717
payments	0.001677

content_and_publishing	0.000973
gaming	0.000822
community_and_lifestyle	0.000755
music_and_audio	0.000714
transportation	0.000674
privacy_and_security	0.000506
government_and_military	0.000506

sustainability	0.000497
design	0.000496
events	0.000406
sales_and_marketing	0.000382
agriculture_and_farming	0.000366
sports	0.000359
platforms	0.000356
navigation_and_mapping	0.000274

food_and_beverage	0.000244
professional_services	0.000203
administrative_services	0.000000
clothing_and_apparel	0.000000
natural_resources	0.000000