Predicting Kickstarter Project Success

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Can We Predict Whether a Kickstarter Project Will Succeed or Fail?

- Using a Kaggle dataset with over 100,000 observations of Kickstarter projects
- Randomly selected 20,000 rows between 2014 and 2018
- Notable features:
  - Goal
  - Backers
  - Category
  - Days Open
  - Year
  - ARIMA

KICKSTARTER

Why Do We Need Machine Learning to Predict Kickstarter Success?

- Intuitively, we would expect projects with a lower goal and more backers to be successful - but that's not always the case!

The Butternut Baking Co.
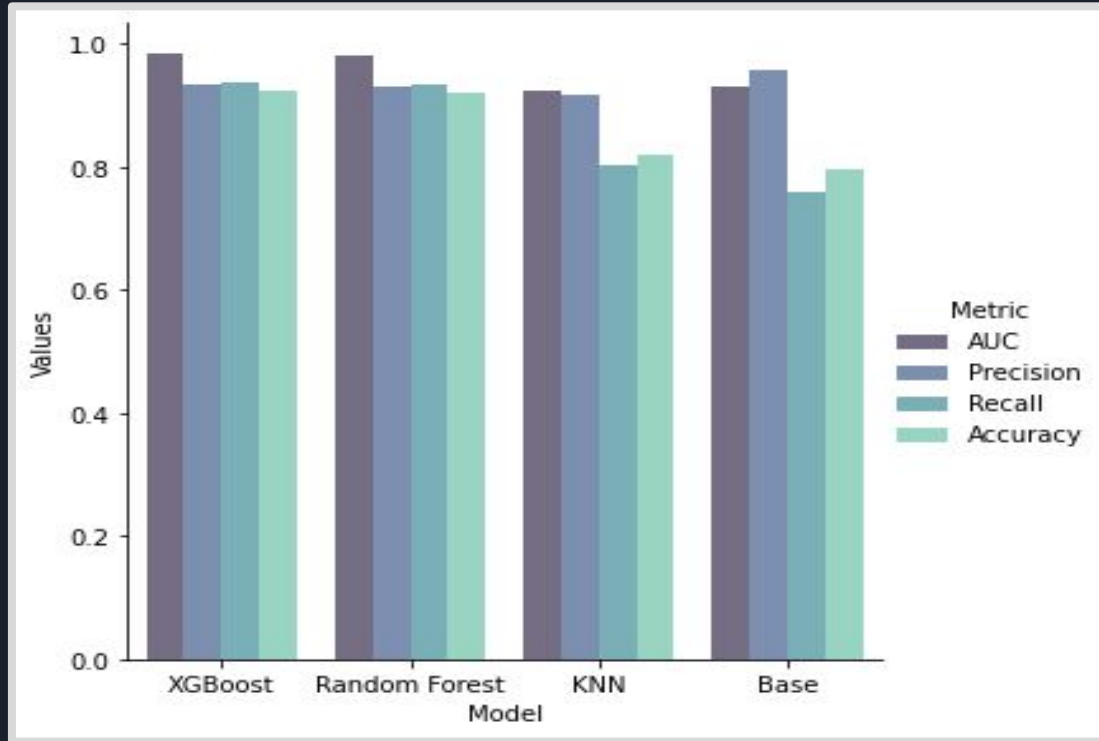
Goal: $16,500

Backers: 62

SUCCEEDED!

Rants and Raves

Goal: $15,000

Backers: 72

FAILED!

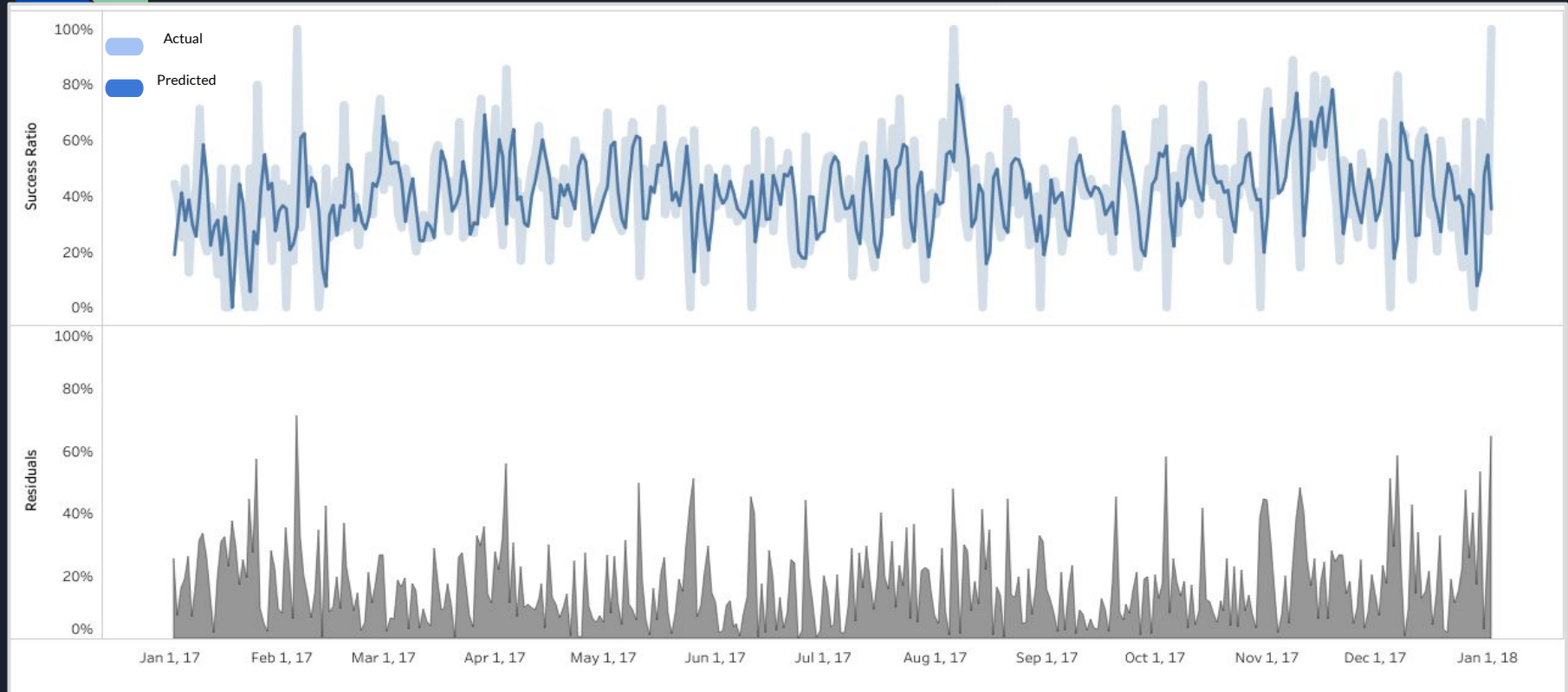# Performance Comparison for XGBoost, Random Forest, KNN, and Base Model

How Do The Models Perform With Our Previous Examples?

		The Butternut Baking Co.	Rants and Raves
1	**KNN**	✕	✕
2	**Random Forest**	✕	✓
3	**XGBoost**	✓	✓

XGBoost seems to perform the best in this case

ARIMA Model Predictions of Success Ratio

Feature Importances in XGBoost Model

- Backers - significantly more 'important' than other features

- Real Goal USD - inflation adjusted goal converted to USD

- ARIMA - low importance, but still used in the model

1. **Backers**
2. **Real Goal USD**
3. Goal
4. Film
5. Games
6. Tech
7. Theater
8. Music
9. Dance
10. Design
11. Comics
12. Days Open
13. Year
14. Art
15. Crafts
16. Photography
17. Publishing
18. **ARIMA**
19. Food

Questions?