

Predicting UFC Winners

About Me

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Overview

Business Problem

Data

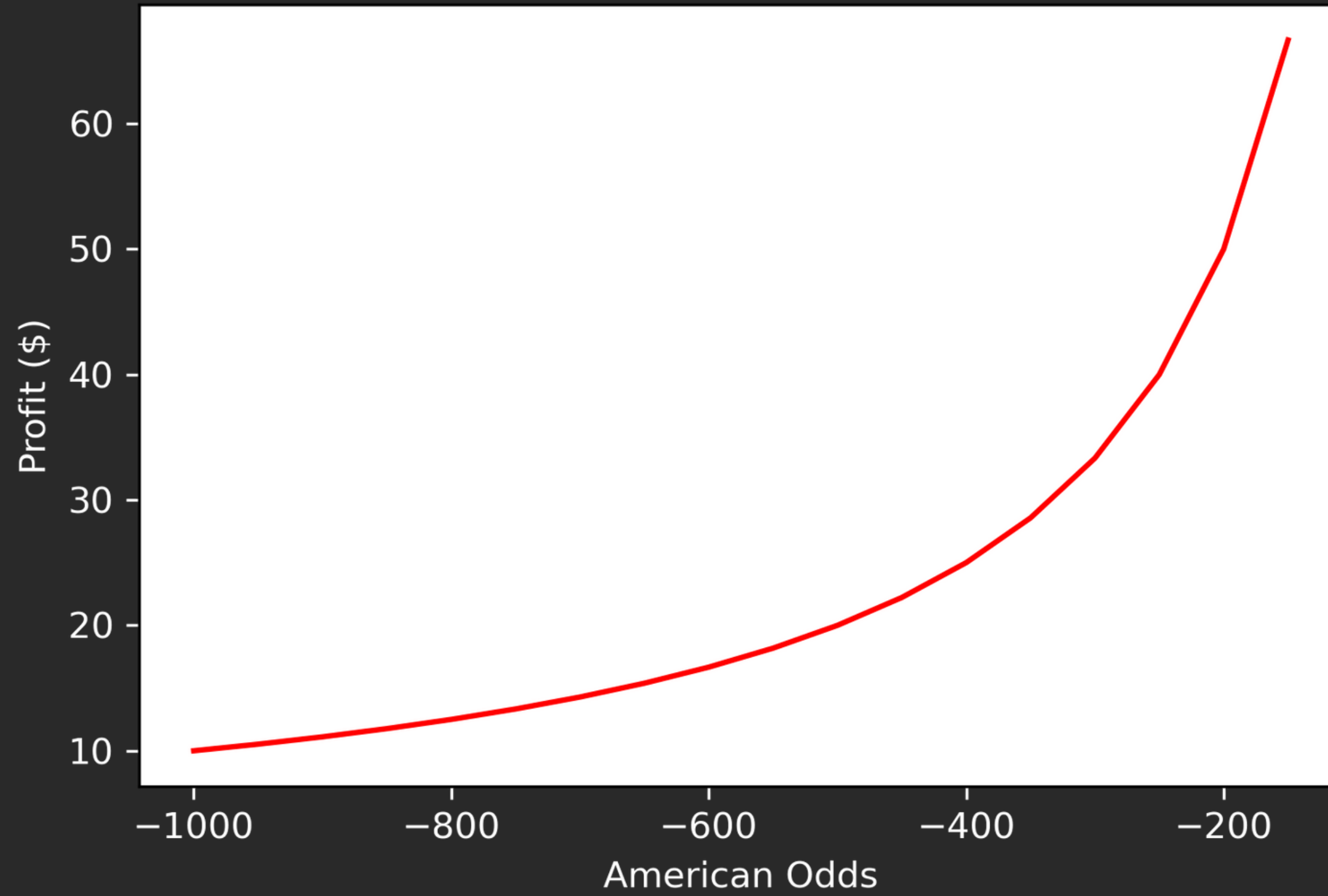
Methods & Models

Conclusion

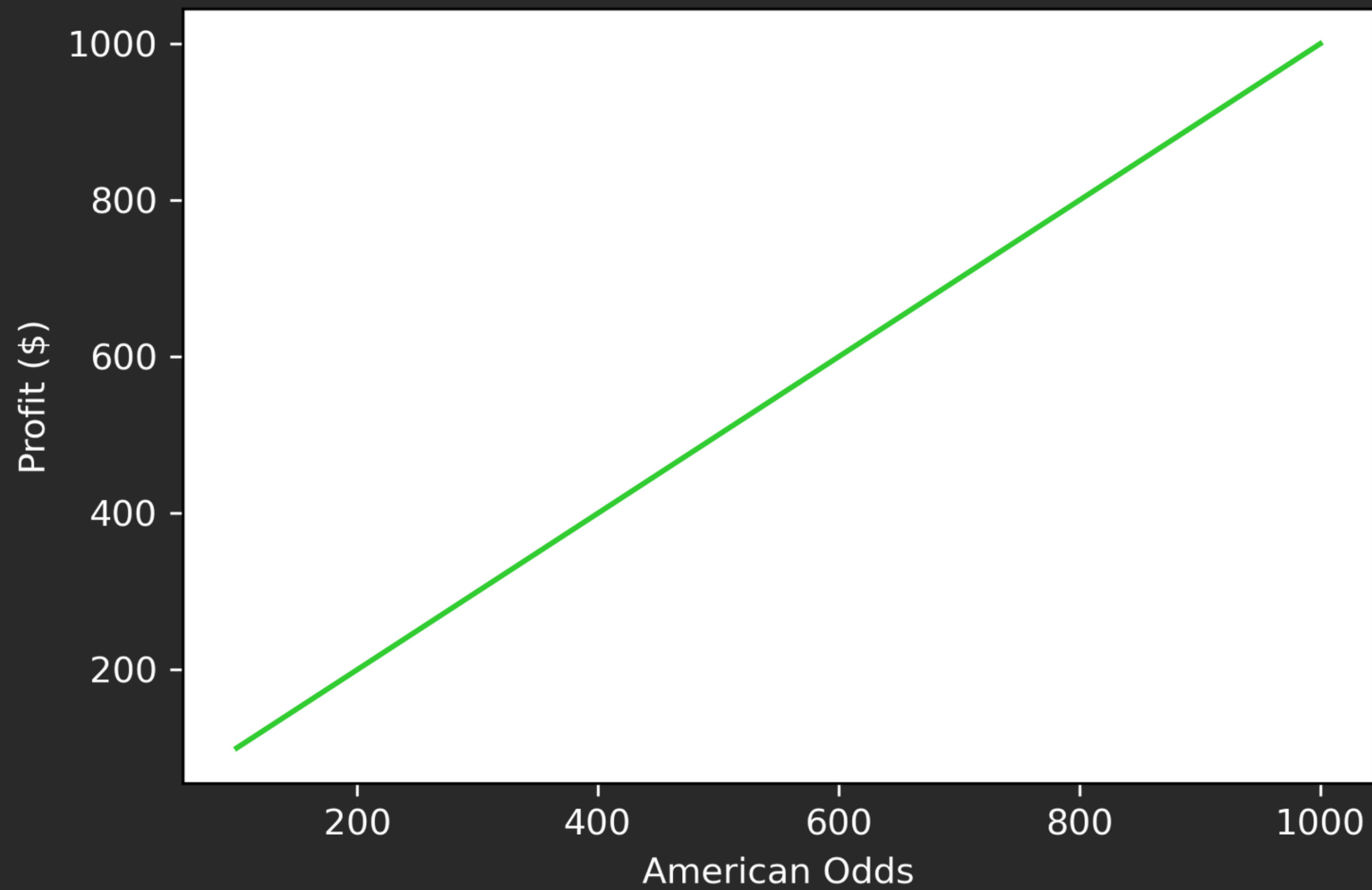
Business Problem

- Predicting winners
- Favorite v. Underdog
- Make a profit

Betting \$100 on Minus Odds



Betting \$100 on Plus Odds



Israel Adesanya -550 ▲

Sean Strickland +410 ▼

Alexander Volkov -238

Tai Tuivasa +195 ▲

Austen Lane +164 ▲

Justin Tafa -198 ▼

Anton Turkalj -122 ▲

Tyson Pedro +102 ▼

→ Profit: \$410

→ Loss: \$100

→ Loss: \$100

→ Profit: \$102

Total Profit: \$312

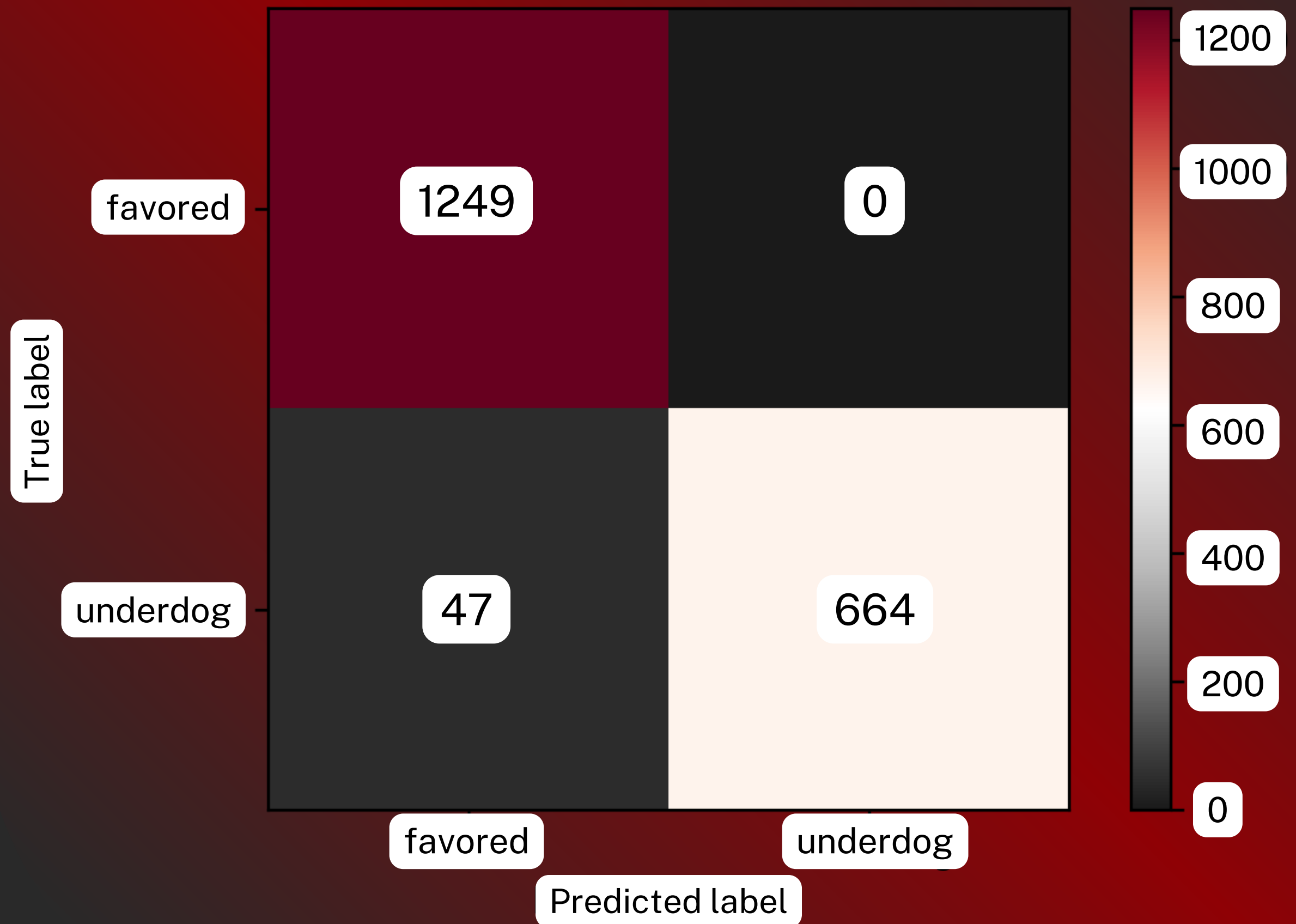
Data Preparation

- Create new columns
- Change 'winner' column
- Delete columns
- Manage null values

Methods

- Random forest
- Logistic regression
- Gradient boosting
- Neural network
- Stacking classifier

Gradient Boosting Classifier





100%

Precision on training data

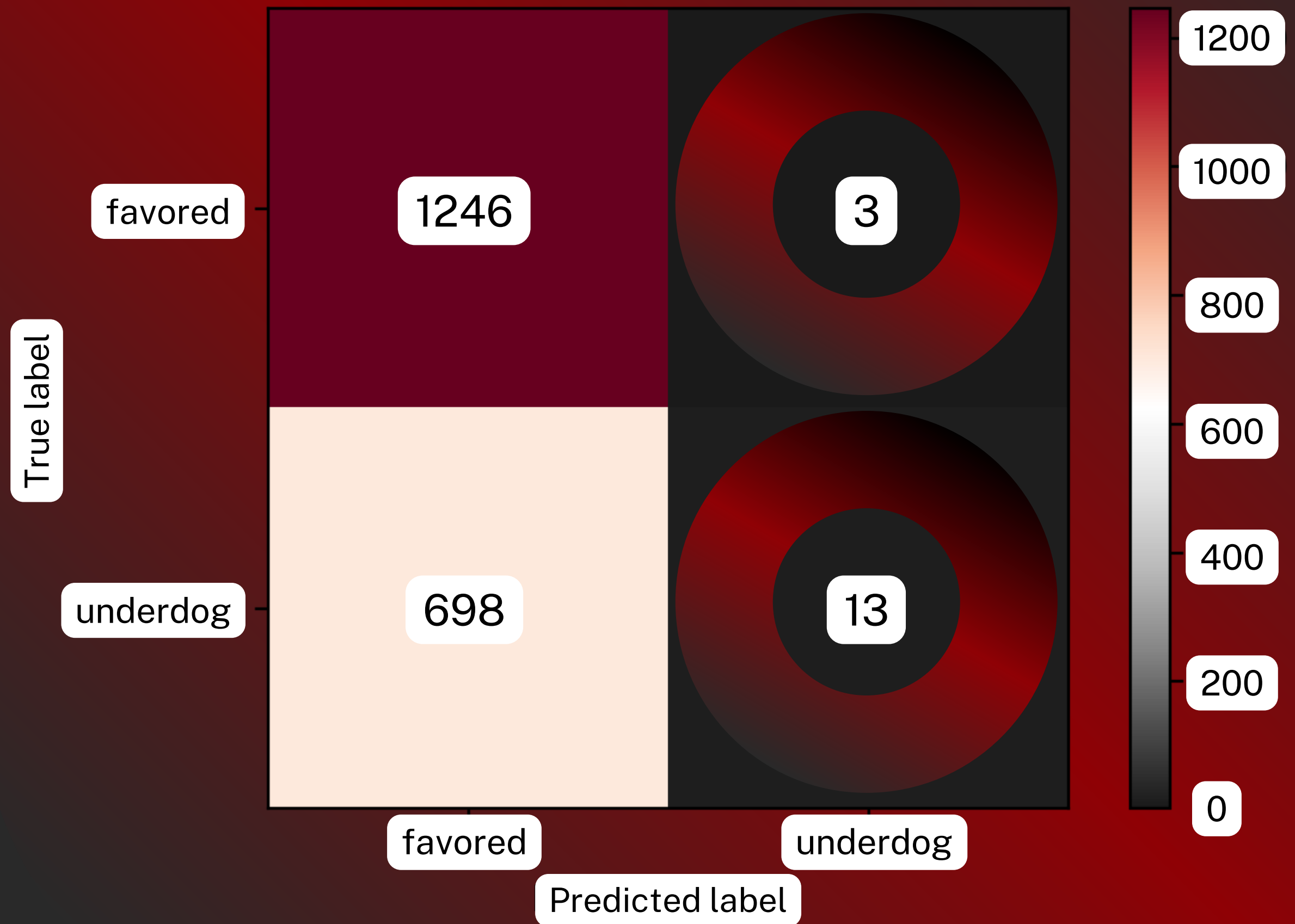
48%

Precision on cross validation

~33%

Of predictions are underdogs

Neural Network





81%

Precision on training data

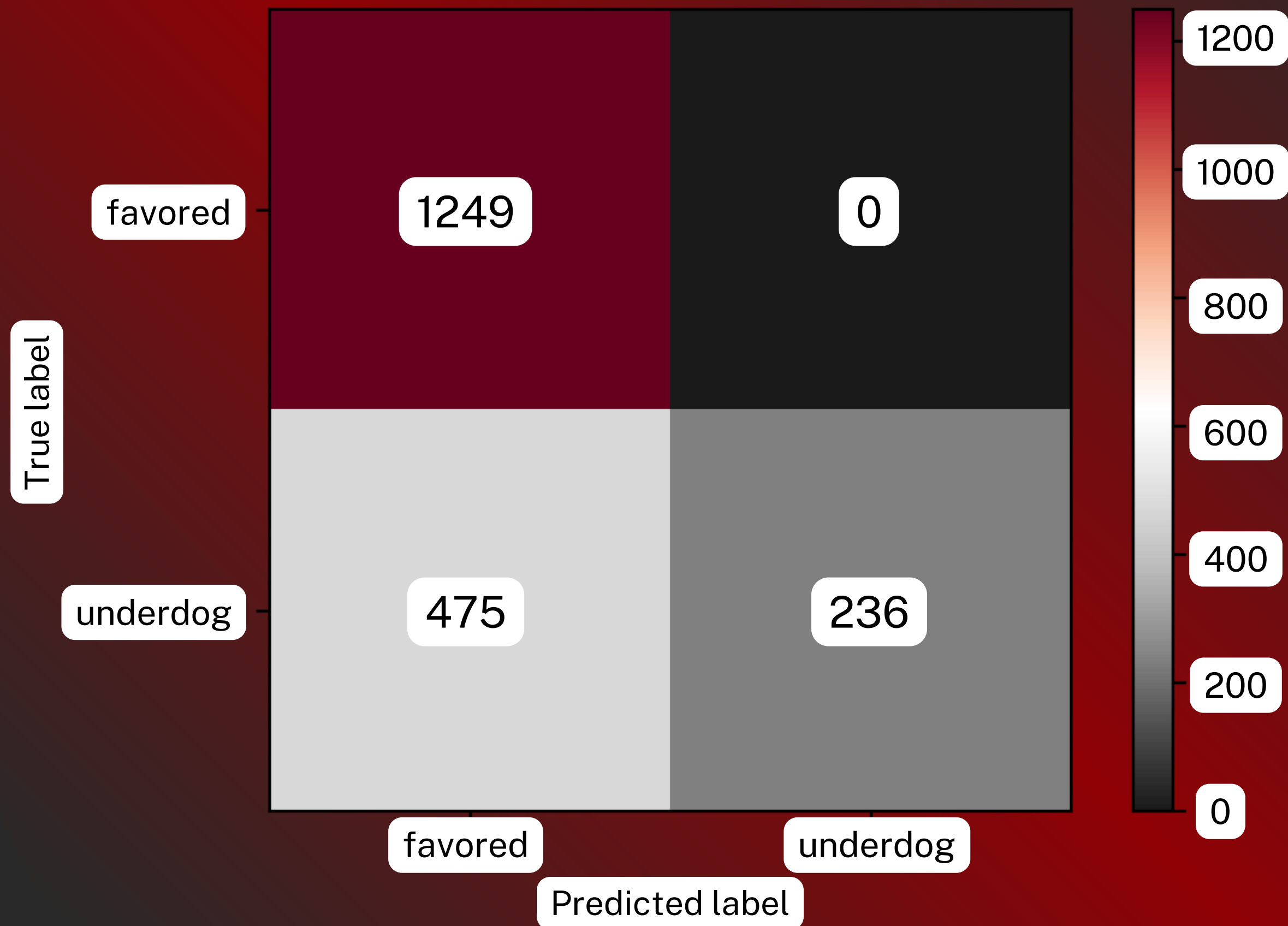
80%

Precision on cross validation

~0.8%

Of predictions are underdogs

Stacking Classifier





100%

Precision on training data

65%

Precision on cross validation

~19%

Of predictions are underdogs

65%

Precision on cross validation

75%

Precision on testing data

~1.2%

Of predictions are underdogs

Conclusion

- High precision
- Rarely predicts underdogs
- Profitable

Next Steps

- Collect data
- Explore voting classifier
- Feature reduction

Thank you!

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