

# Predicting UFC Winners

# About Me

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# Overview

Business Problem

Data

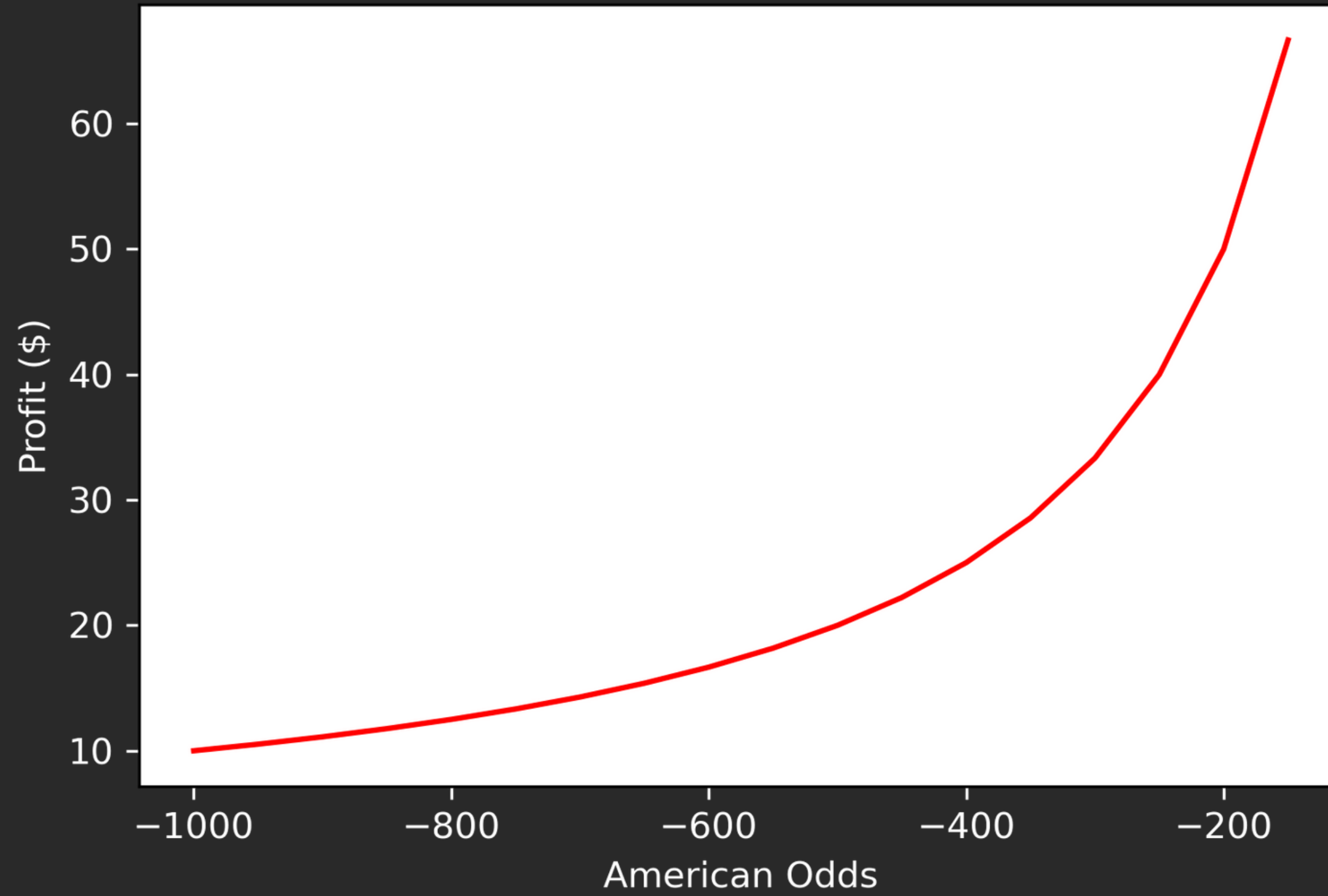
Methods & Models

Conclusion

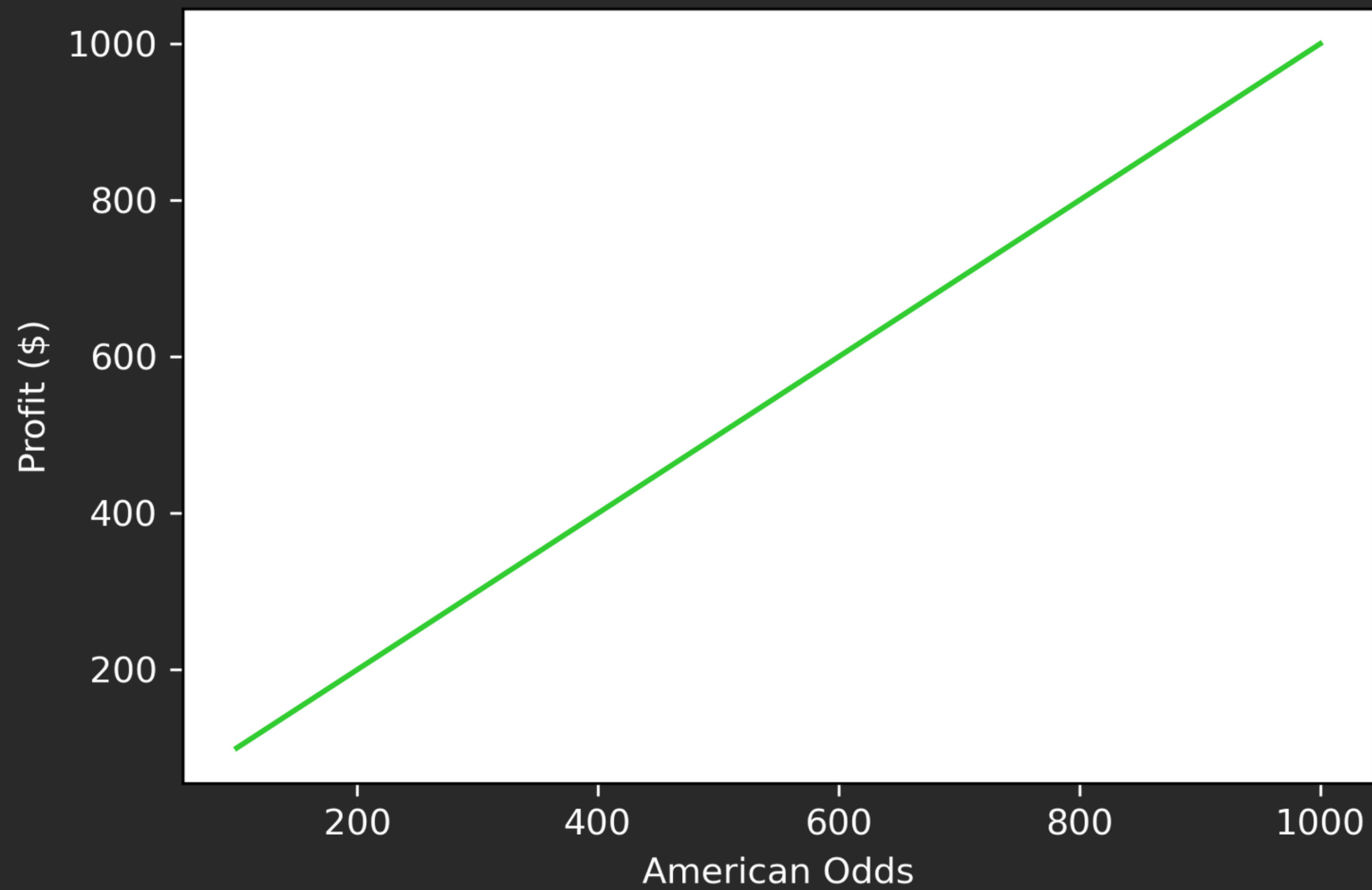
# Business Problem

- 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

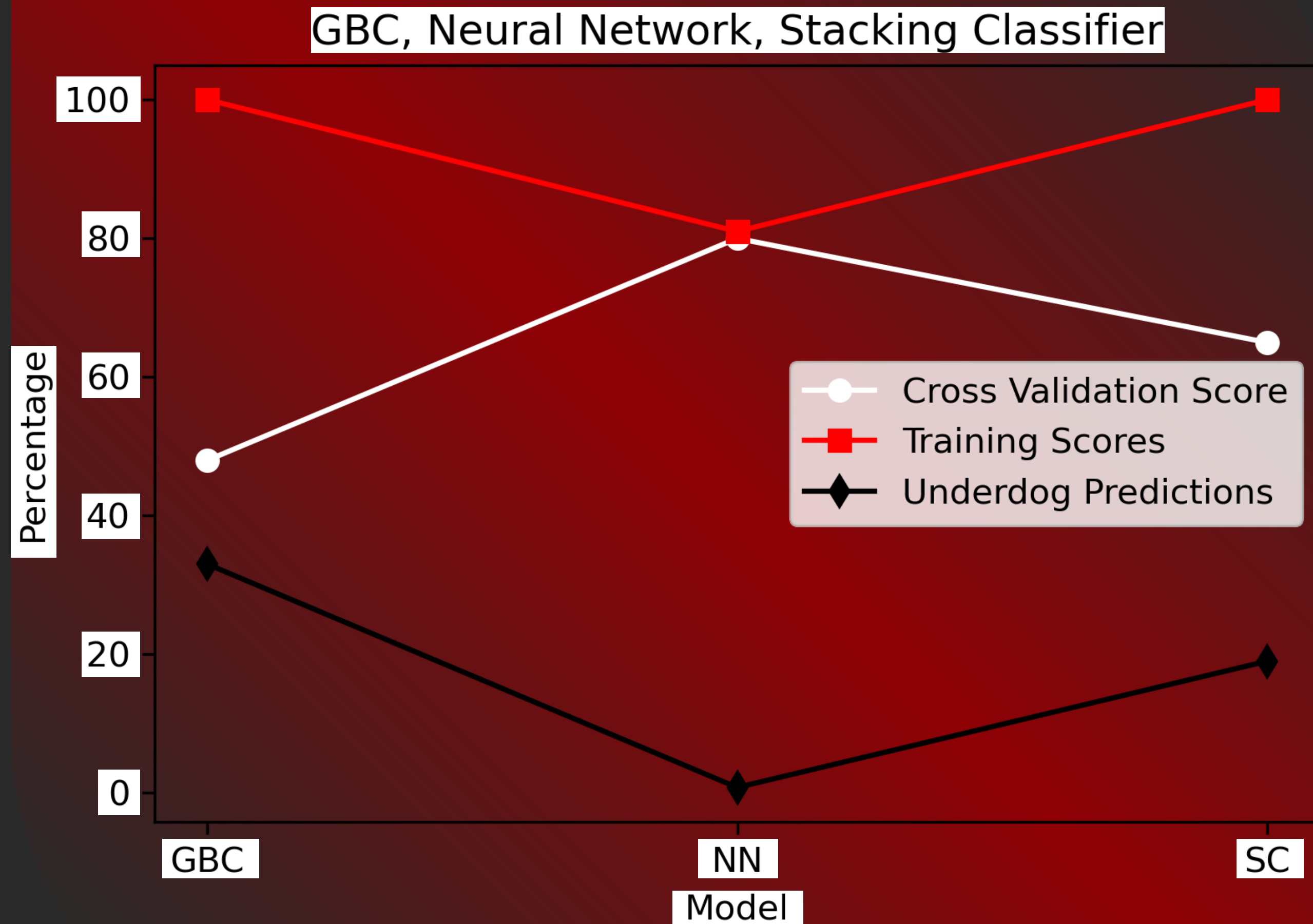
Total Profit: \$312

# Data Preparation

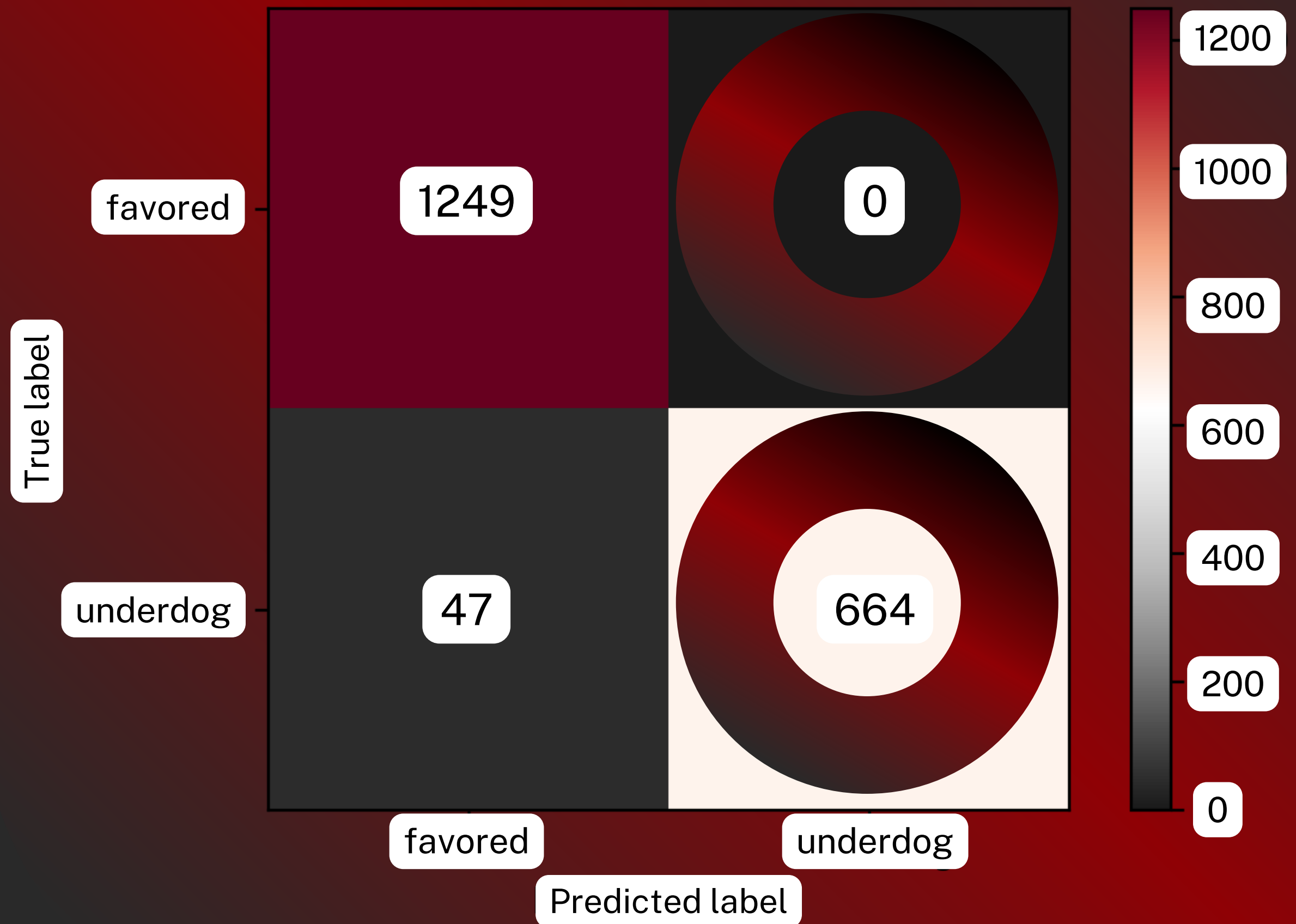
- Create new columns
- Change 'winner' column
- Delete columns
- Manage null values



# Methods



# Gradient Boosting Classifier





100%

Precision on training data

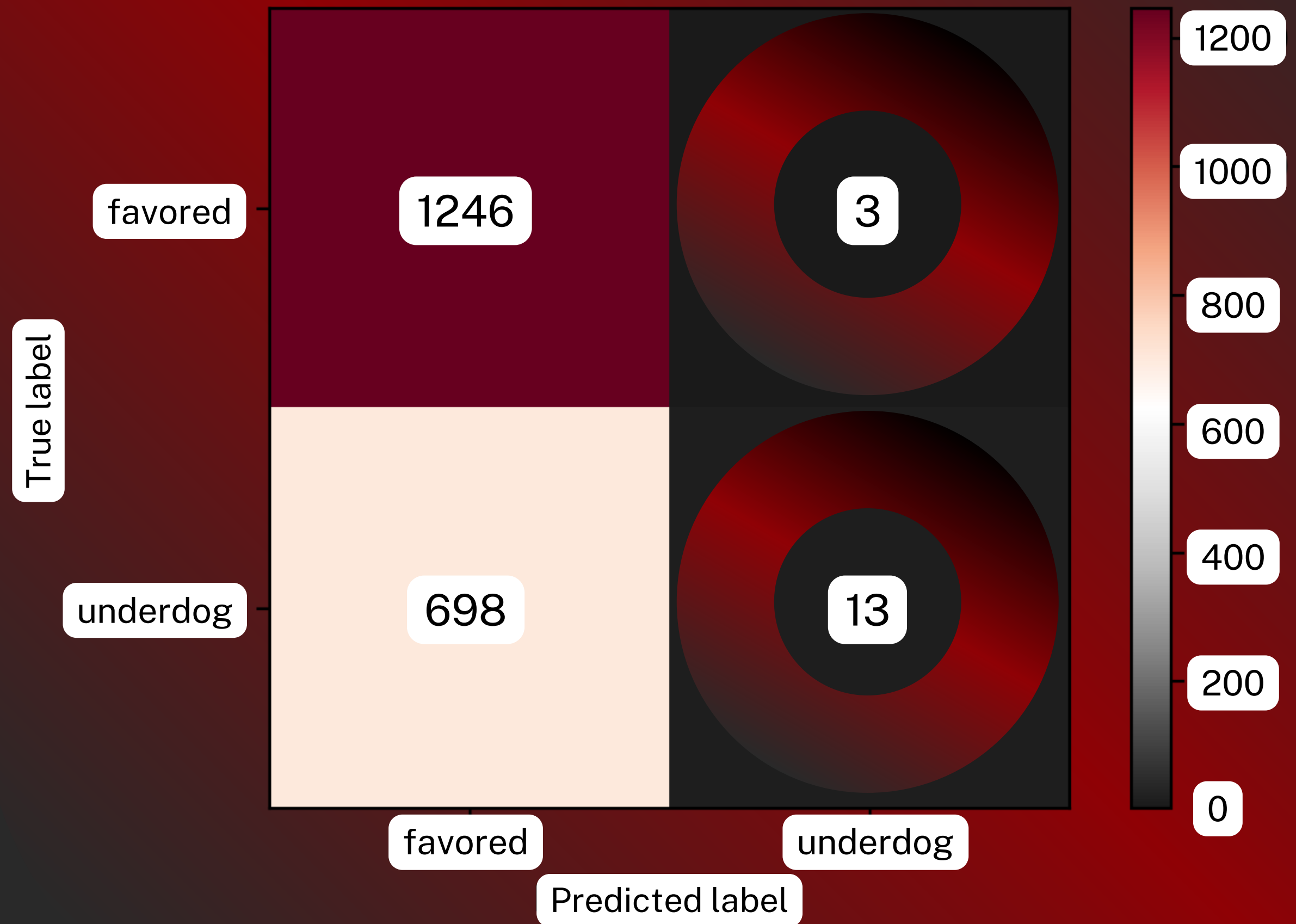
48%

Precision on cross validation

~33%

Of predictions are underdogs

# Neural Network





81%

Precision on training data

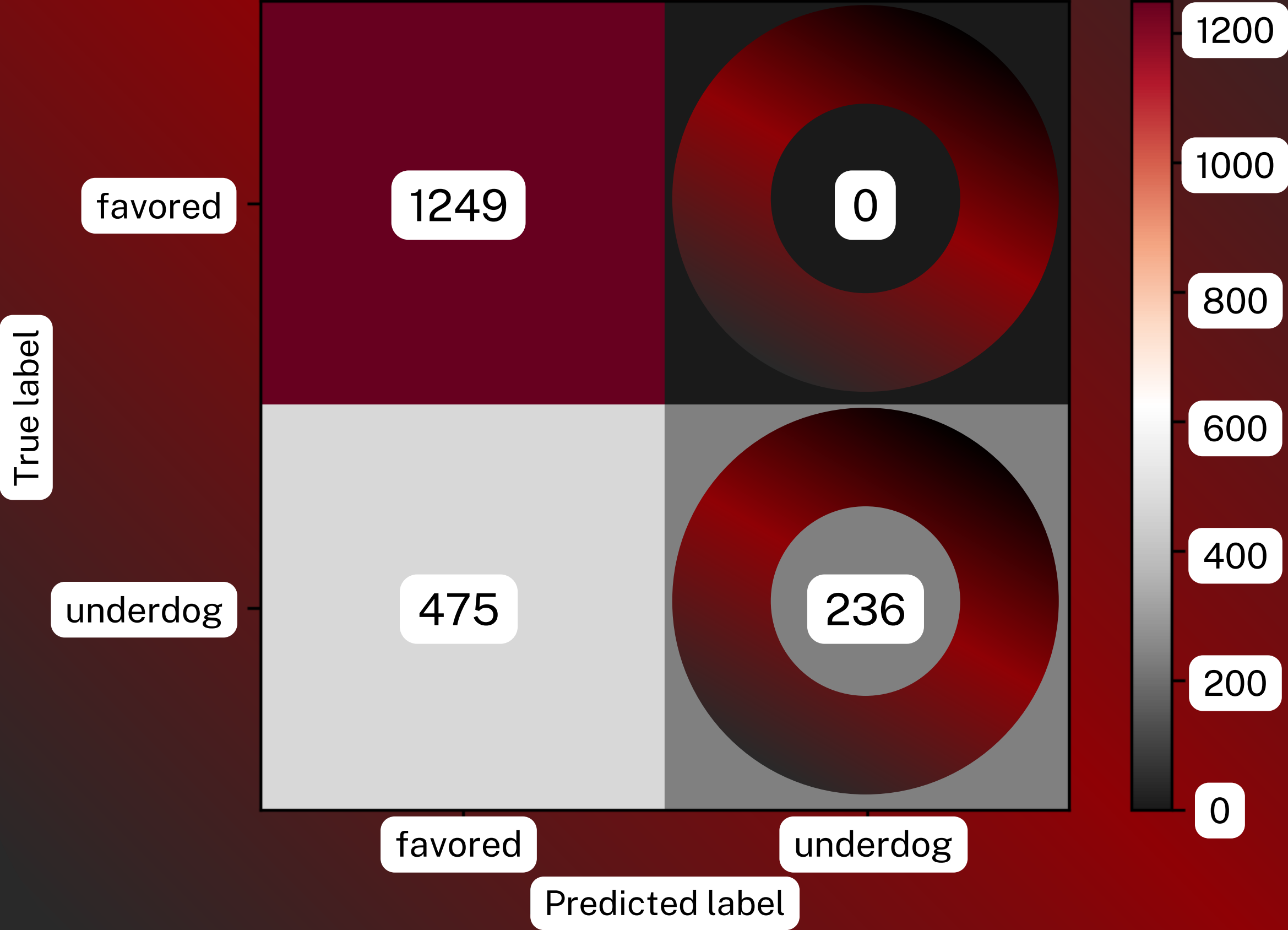
80%

Precision on cross validation

~0.8%

Of predictions are underdogs

# Stacking Classifier





100%

Precision on training data

65%

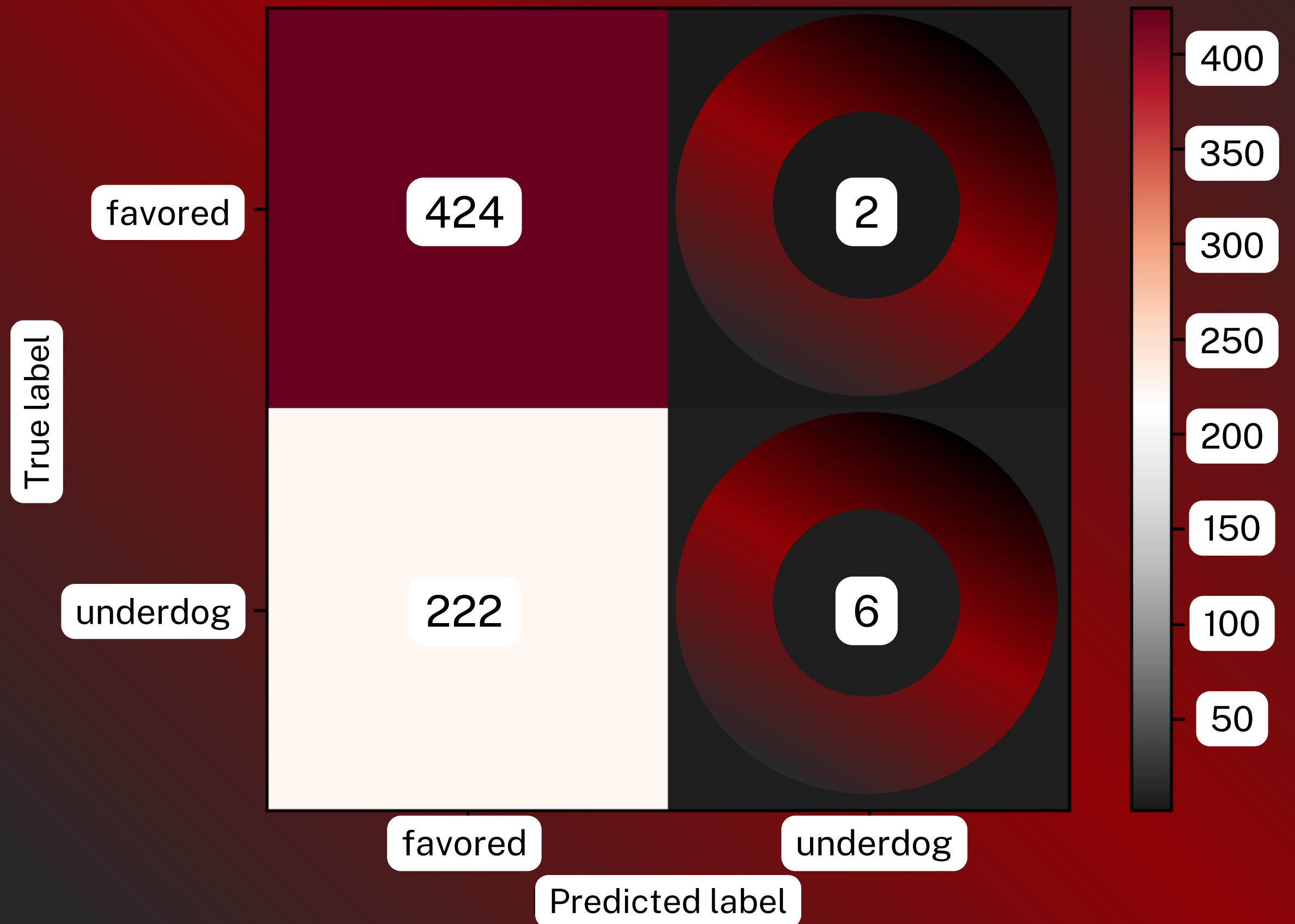
Precision on cross validation

~19%

Of predictions are underdogs



# Stacking Classifier (test data)





**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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