

# NBA Season Win Percentage Prediction

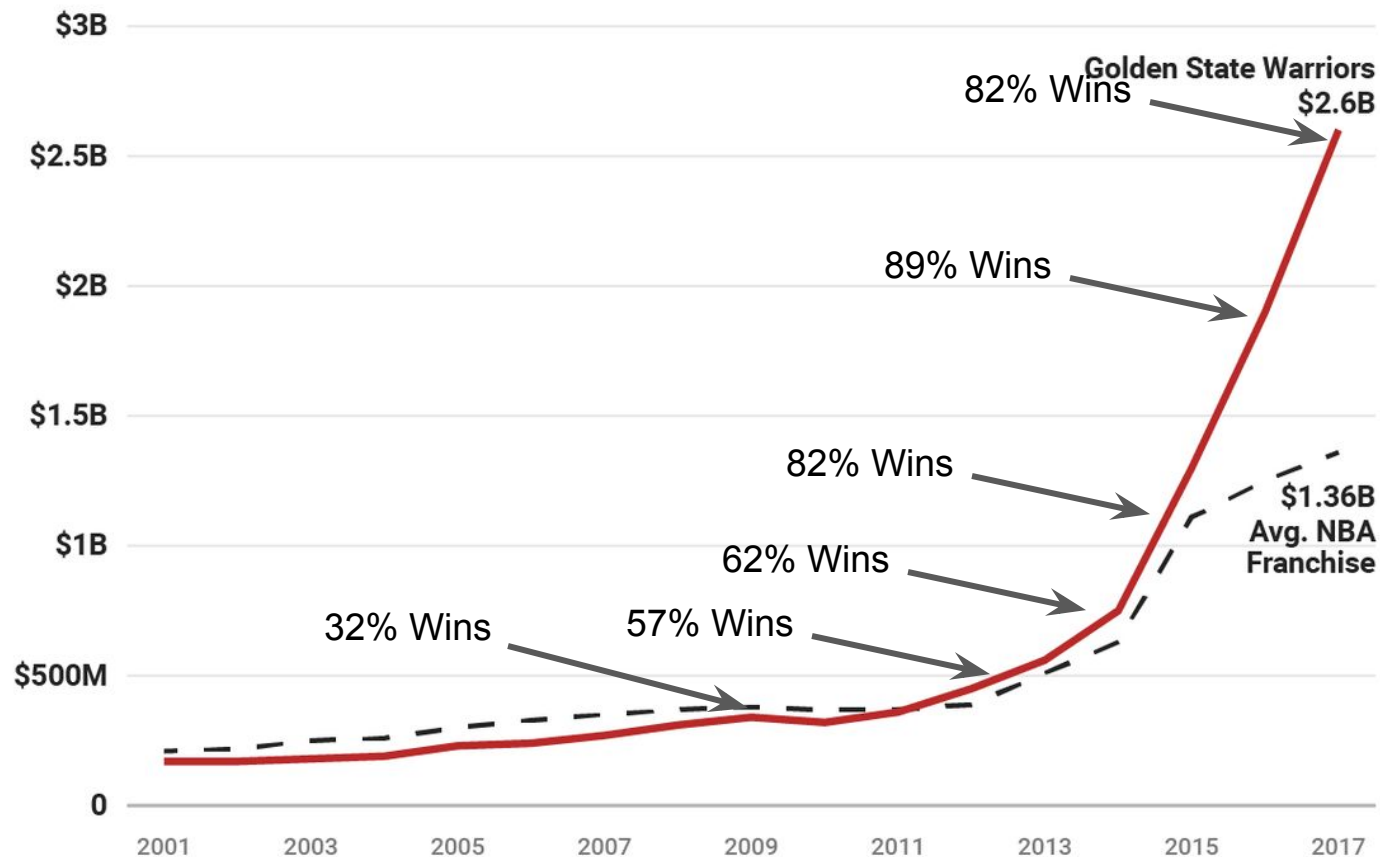
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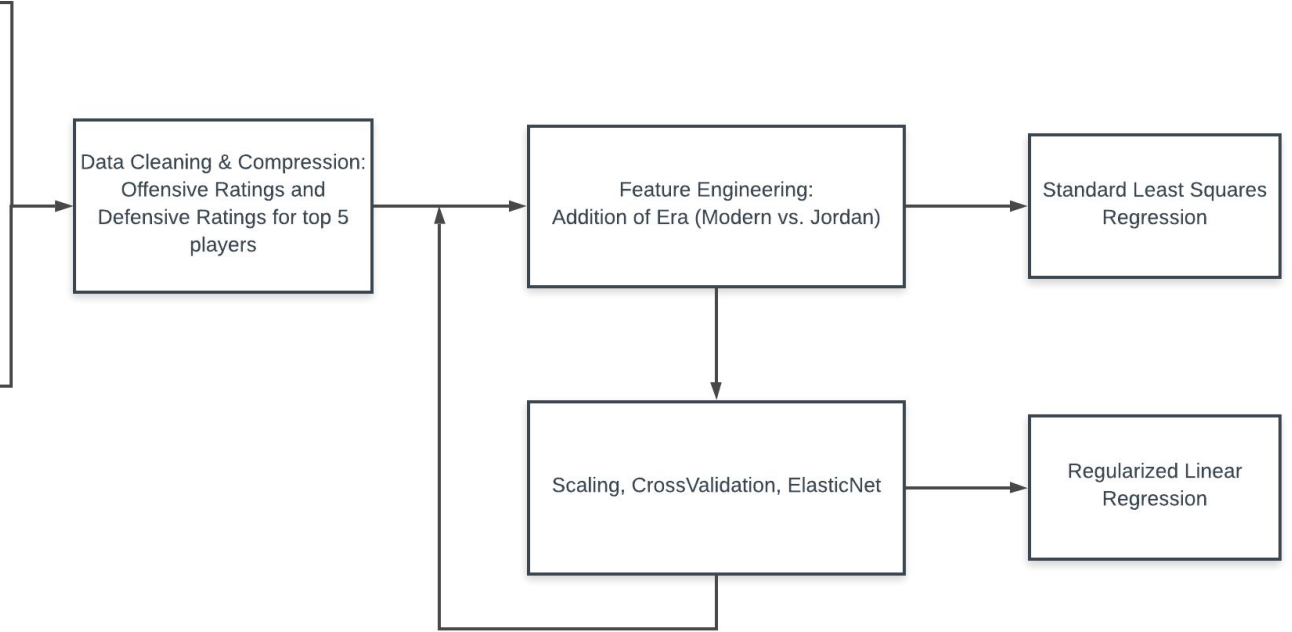
## GOLDEN STATE WARRIORS FRANCHISE VALUE

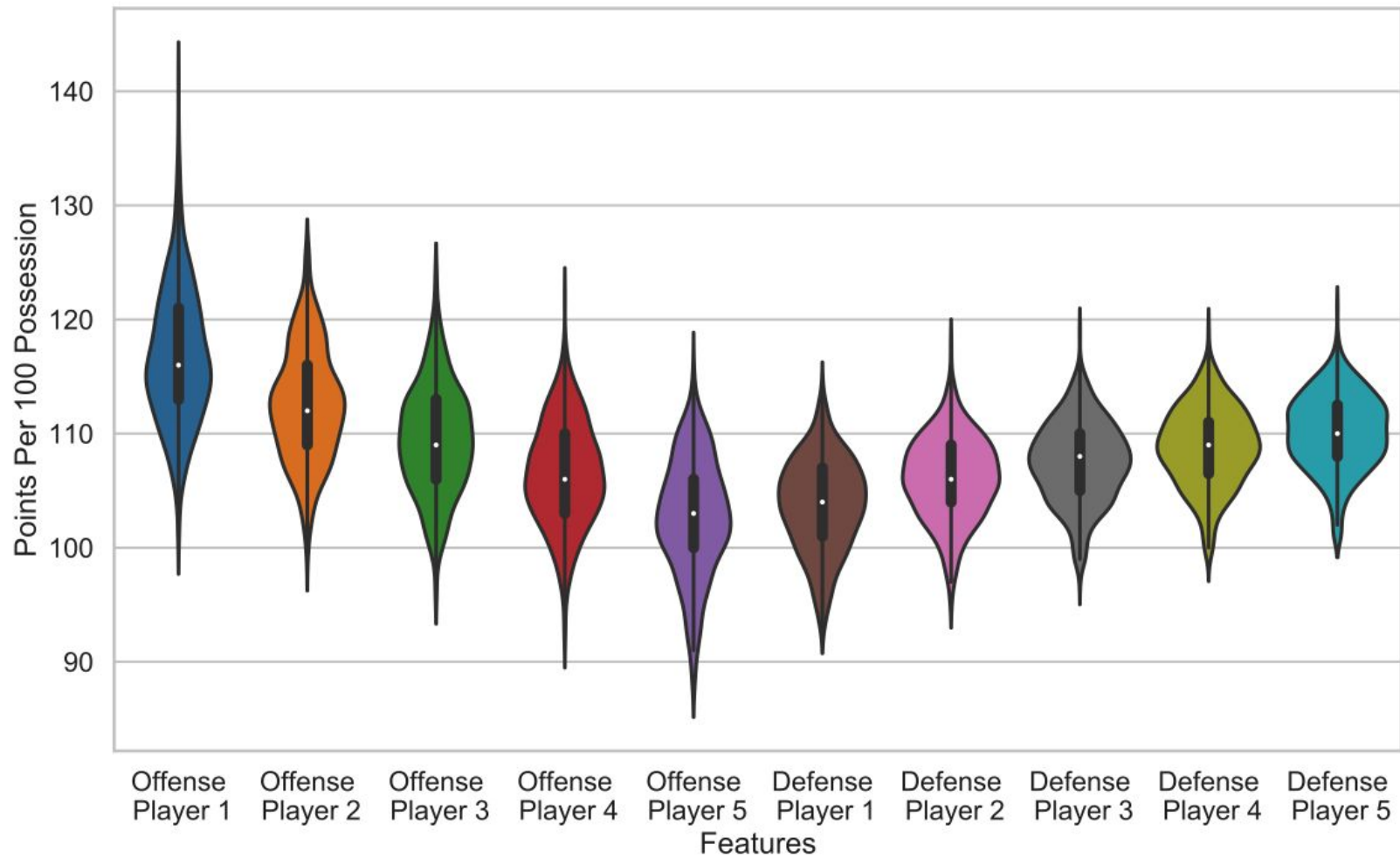


SOURCE: Forbes, Sports Business Daily

BUSINESS INSIDER









# Feature Engineering



# Standard Linear Regression

Without Normalization (scaling for Z-score)

Pros:

High in-sample  $R^2$  : 0.85

Cons:

Passed All Validation Except  
Multicollinearity

With Normalization (scaling for z-score)

Pros:

Eliminated Multicollinearity  
(different non-linear scale for each feature)

Cons:

Near Zero  $R^2$  : 0.08

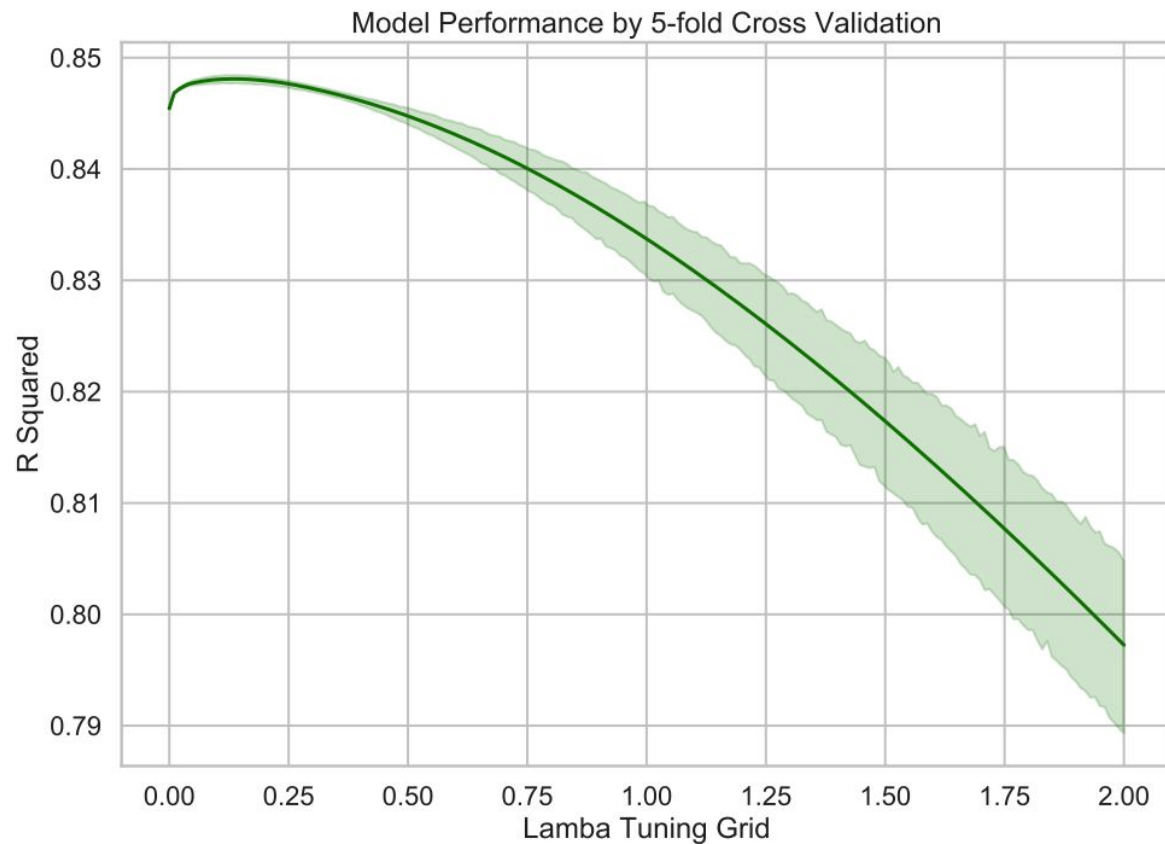
# Elastic Net

Lambda - Ridge and Lasso Strength:

0.12

Alpha - Percent Lasso and Ridge:

10% Lasso and 90% Ridge



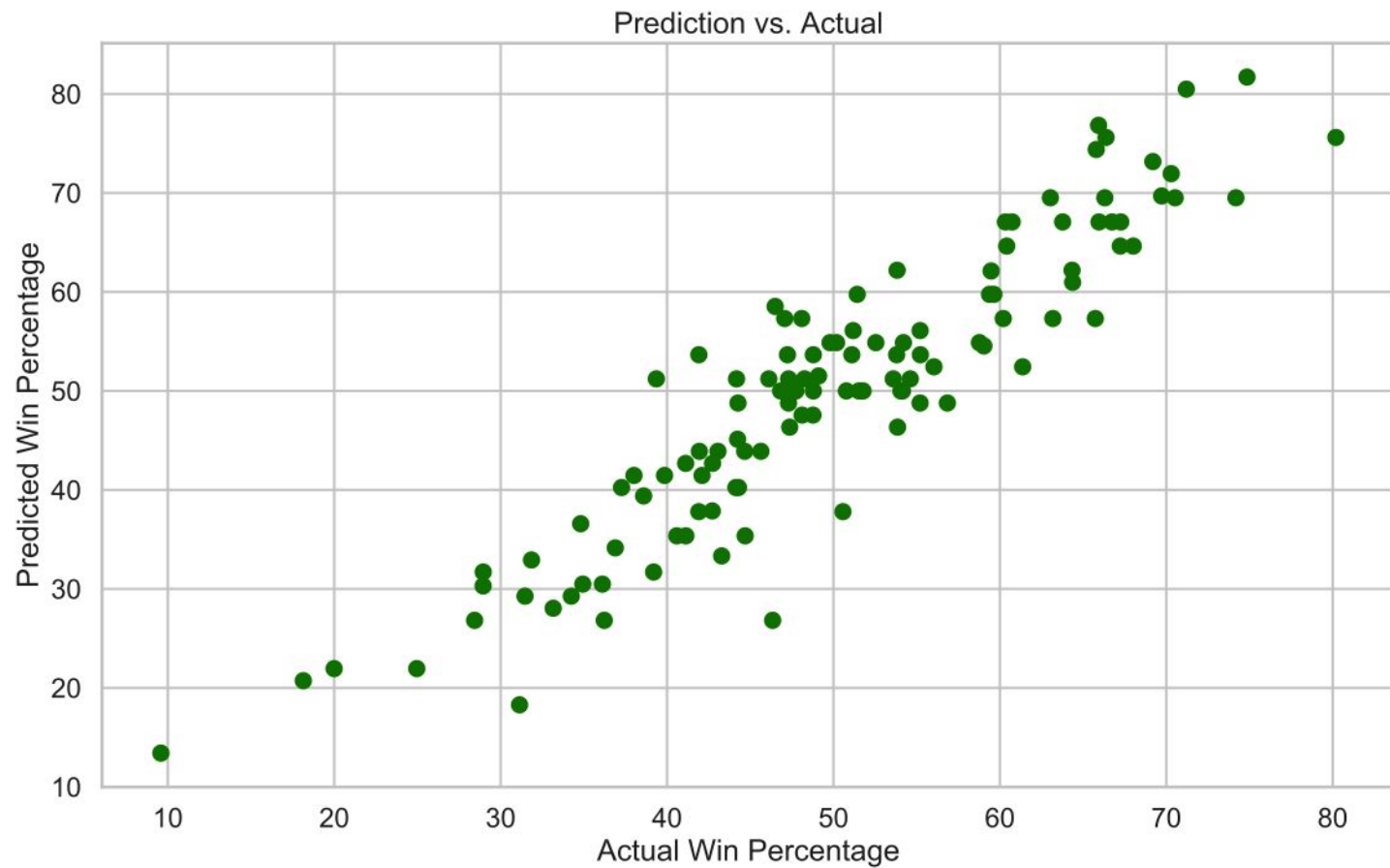


# COEFFICIENTS

Feature	Value Std. Dev	Engineered Feature	Value Std. Dev
Player 1 Offense	1.9	Player 1 Offense New Era	0.1
Player 2 Offense	2.6	Player 2 Offense New Era	0
Player 3 Offense	2.4	Player 3 Offense New Era	0.02
Player 4 Offense	2.9	Player 4 Offense New Era	0.1
Player 5 Offense	2.0	Player 5 Offense New Era	0.04
Player 1 Defense	-1.9	Player 1 Defense New Era	0.08
Player 2 Defense	-1.6	Player 2 Defense New Era	0.04
Player 3 Defense	-1	Player 3 Defense New Era	0.04
Player 4 Defense	-2.4	Player 4 Defense New Era	0
Player 5 Defense	-2.26	Player 5 Defense New Era	0

Intercept: 50%

Root Mean Squared Error : 5.6 %



# Future Work





Thank You  
For Your Consideration