

Moneyball II

By:

Allen Alonso, Cole Turner, Matthew Leon, & Michael Garverick

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National League West Division

Which MLB team in the NL West is most likely to win the division in 2023, using the 2015-2019 & 2021 seasons' statistics as training data & the 2022 season statistics as the test data

Arizona Diamondbacks



Colorado Rockies



Los Angeles Dodgers

San Diego Padres

San Francisco Giants

The Stats



SLG: Slugging percentage represents the total number of bases a player records per at-bat

BAVG: Batting average; determined by dividing a player's hits by their total at-bats

SB: Stolen Bases

H: Hits

W: Wins

Win%: $\text{Wins} / 162 (\text{games in a season}) * 100$

The Data

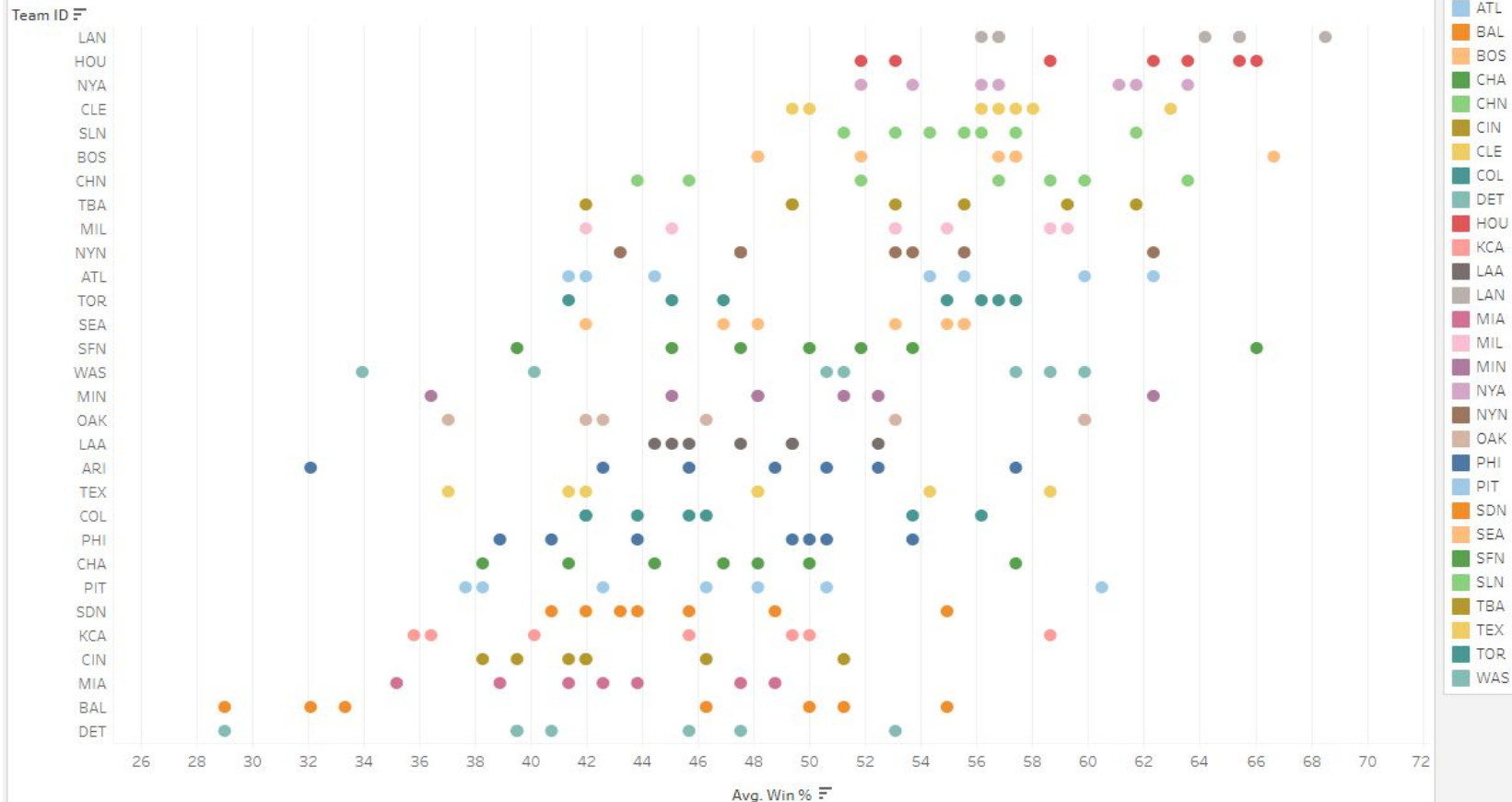
- 6 years of MLB Team Data
- 1 Year = 162 games per team
- Narrowed Data down to 5 MLB Teams in the NL West Division



Average Win Percentage



Teams Average Win %

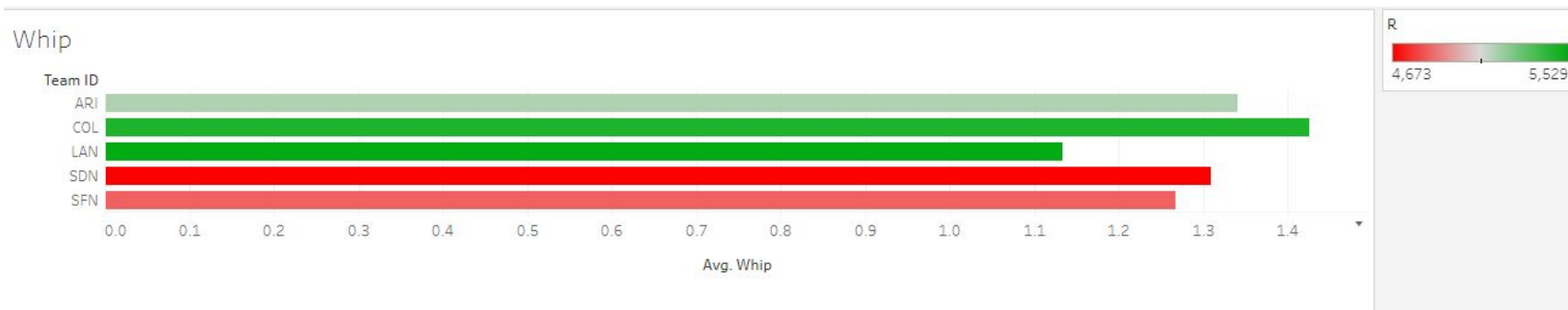


Averages



Walks and Hits per Inning Pitched (WHIP)

Michael data r^2



Machine Learning

- Features: SLG, SB, and BAVG
- Target: Total runs over 790
- Target 2: Total runs under 669
- **90%** accurate for low performers
- **88%** accurate for high performers

Name	Acc	Loss		L1	L2	L3
Low Scores	0.880952	0.218548		8	5	
	0.904762	0.216655		20	10	
	0.904762	0.237874		40	20	
	0.880952	0.37577		40	20	10
	0.904762	0.344131		50	35	
High Scores	0.857143	0.319566		8	5	
	0.857143	0.26119		20	10	
	0.857143	0.260892		25	10	
	0.880952	0.262558		20	20	
	0.857143	0.272693		30	30	10



Conclusion

In Conclusion,