Analysis of FIFA 18 Player Ratings

By Big Baller Data

Ammar Banatwala, Austyn Yamada, Donald Vu

Guiding Questions

- 1) Identifying which variables correlate highly with a players Overall rating. This would let us see which traits and attributes are seemingly more important in determining how a good a player is.

- 2) Identifying which teams are getting more bang for their buck by analyzing the wages they pay their players and the their average Overall player rating.

- 3) Identify which predictors are significant for predicting wage.

Correlation Table for Overall Rating

- Only 5 predictors have a correlation above .45 with Overall:
  - Special (.604461)
  - Composure (.633664)
  - Short Passing (.491155)
  - Vision (.485516)
  - Reaction (.840602)

	Overall	Special	Composure	Reactions	Short Passing	Vision
Overall	1	0.604461	0.633664	0.840602	0.491155	0.485516
Special	0.604461	1	0.808071	0.590272	0.906123	0.756246
Composure	0.633664	0.808071	1	0.602478	0.763045	0.647695
Reactions	0.840602	0.590272	0.602478	1	0.468983	0.48559
Short Passing	0.491155	0.906123	0.763045	0.468983	1	0.718995
Vision	0.485516	0.756246	0.647695	0.48559	0.718995	1

Comparing Average Wages and Overall

Club	Average Wage
FC Barcelona	$208,454
Real Madrid CF	$147848
Juventus	$126600
Manchester City	$110000
Manchester United	$104000

Club	Average Overall
FC Barcelona	83.45
Juventus	82.04
Napoli	78.60
Inter	77.56
Real Madrid CF	77.27

- Looks like FC Barcelona, Juventus, and Real Madrid CF are doing well for themselves. They are 3 out of the 5 top wage teams that are getting their money's worth since they also made the top 5 average Overall rating. Both Manchester teams need to rethink their roster and be more careful with handing out large contracts

Feature Selection

Using ExtraTreesClassifier

Positioning	0.033641
Stamina	0.033331
Ball Control	0.033052
Short Passing	0.031888
Heading Accuracy	0.031472

Using Univariate Selection

Long Passing	22765.916405
Crossing	20883.949138
VIsion	19601.057020
Dribbling	17815.322511
Penalties	17814.677316

Comparing Model Criterion

ExtraTreesClassifier:

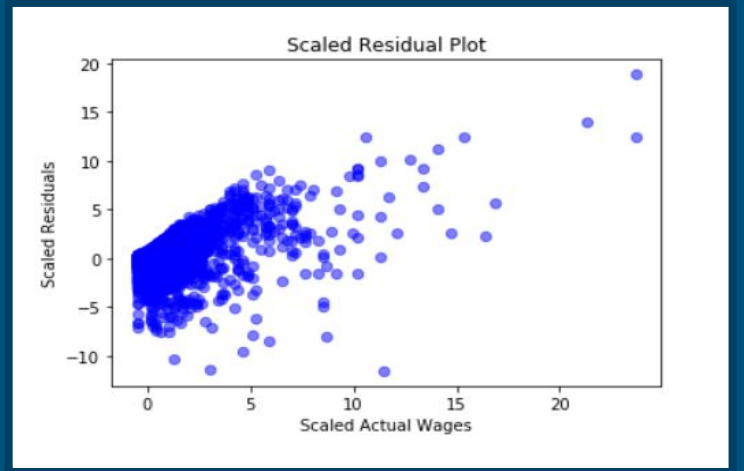
MSE	4.923719e+08
SSR	8.862695e+12
SST	9.839082e+12
SD	2.218946e+04
R-Squared	.262
Adj. R-squared	.261

Univariate Model Summary:

MSE	4.532284e+08
SSR	8.158112e+12
SST	9.839082e+12
SD	2.128916e+04
R-Squared	.264
Adj. R-squared	.264

Linear Model Chosen

Features	Est. Coefficients
Long Passing	50.8528
Crossing	48.2577
Vision	104.7024
Dribbling	-44.6983
Penalties	-82.3430
Composure	246.2441



THANK YOU