

Insights into football defence a data science perspective

Mohit yadav

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Abstract

Analysing the passes and the defence formation and finding the insight's while a goal is scored.

1 Introduction

Exploring all the different possibilities for a football denfence to succeed. This includes nominating the fatal passes, setting up the players positions(pre-determined) with respect to the opposition team's player.

2 Data source

All the open source player statistics available at FIFA 14, FIFA 15, FIFA 16, FIFA 17, FIFA 18, FIFA 19, FIFA 20, FIFA 21 and FIFA 22.

2.1 Data Attributes

The attributes in data are :

- Players Personal details such as players name('long name'), player's buy in value ('value eur'), player salary('wage eur'), Age and date of birth ('age', 'dob'), players height ('height cm').players weight('weight kg'), players club team ('club name'), players jersey number('club jersey number'), and their ('nationality id', 'nationality name', 'nation team id','nation position', 'nation jersey number', 'preferred foot').
- Other attributes are players professional statistics and computations of players at different positions, like ,main playing position('player positions'),players overall stats('overall'), players max potential('potential') and these ('weak foot', 'skill moves', 'pace', 'shooting', 'passing','dribbling', 'defending','attacking crossing', 'attacking finishing', 'attacking heading accuracy', 'attacking short passing', 'attacking volleys', 'skill dribbling', 'skill curve', 'skill fk accuracy', 'skill long passing', 'skill ball control', 'movement acceleration', 'movement sprint speed', 'movement agility', 'movement reactions', 'movement balance', 'power shot power', 'power jumping', 'power stamina', 'power strength', 'power long shots', 'mentality aggression', 'mentality interceptions', 'mentality positioning', 'mentality vision', 'mentality penalties', 'mentality composure', 'defending marking awareness', 'defending standing tackle', 'defending sliding tackle', 'goalkeeping diving', 'goalkeeping handling', 'goalkeeping kicking', 'goalkeeping positioning', 'goalkeeping reflexes','goalkeeping speed'.
- These attributes are comparison if the player plays on certain position what would be the probability :

Left sweeper – 'ls',
second striker – 'st',
right sweeper – 'rs',
left winger – 'lw',

left forward – 'lf',
 center forward – 'cf',
 right forward – 'rf',
 right winger – 'rw',
 left attacking midfielder – 'lam',
 center attacking midfielder – 'cam',
 right attacking midfielder – 'ram',
 left midfielder – 'lm',
 left center midfielder – 'lcm',
 center midfielder – 'cm',
 right center midfielder – 'rcm',
 right midfielder – 'rm',
 left winger back – 'lwb',
 left defensive midfielder – 'ldm',
 center defensive midfielder – 'cdm',
 right defensive midfielder – 'rdm',
 right winger back – 'rwb',
 left back – 'lb',
 left center back – 'lcb', center back – 'cb',
 right center back – 'rcb',
 right back – 'rb',
 Goal keeper – 'gk'.



- Rest all attributes are miscellaneous. ('international reputation', 'work rate', 'body type', 'real face', 'physic', 'release clause eur', 'player tags', 'player traits').