

```
In [44]: import pandas as pd
import matplotlib.pyplot as plt
#Install with Pip first,
from soccerplots.radar_chart import Radar
```

```
In [45]: #Read in data
df = pd.read_csv('F:My Drive/Analytics Practice/radars.csv')
df
```

```
Out[45]:
```

	Rk	Player	Nation	Pos	Squad	Age	Born	90s	Gls	Sh	...
0	1	Patrick van Aanholt\Patrick-van-Aanholt	nl NED	DF	Crystal Palace	30-185	1990	13.7	0	15	...
1	2	Tammy Abraham\Tammy-Abraham	eng ENG	FW	Chelsea	23-151	1997	11.3	6	31	...
2	3	Che Adams\Che-Adams	eng ENG	FW	Southampton	24-232	1996	21.2	4	40	...
3	4	Tosin Adarabioyo\Tosin-Adarabioyo	eng ENG	DF	Fulham	23-159	1997	22.0	0	17	...
4	5	Adrián\Adrian	es ESP	GK	Liverpool	34-058	1987	3.0	0	0	...
...
500	501	Andi Zeqiri\Andi-Zeqiri	ch SUI	FWDF	Brighton	21-253	1999	0.8	0	5	...
501	502	Oleksandr Zinchenko\Oleksandr-Zinchenko	ua UKR	DF	Manchester City	24-077	1996	10.1	0	8	...
502	503	Hakim Ziyech\Hakim-Ziyech	ma MAR	FWMF	Chelsea	27-348	1993	8.0	1	22	...
503	504	Kurt Zouma\Kurt-Zouma	fr FRA	DF	Chelsea	26-126	1994	16.0	4	15	...
504	505	Martin Ødegaard\Martin-Odegaard	no NOR	MF	Arsenal	22-075	1998	2.6	0	3	...

505 rows × 26 columns

```
In [46]: df['Player'] = df['Player'].str.split('\\', expand = True)[0]
```

```
In [47]: df
```

Out[47]:

	Rk	Player	Nation	Pos	Squad	Age	Born	90s	Gls	Sh	...	Dist	F
0	1	Patrick van Aanholt	nl NED	DF	Crystal Palace	30-185	1990	13.7	0	15	...	20.6	
1	2	Tammy Abraham	eng ENG	FW	Chelsea	23-151	1997	11.3	6	31	...	9.9	
2	3	Che Adams	eng ENG	FW	Southampton	24-232	1996	21.2	4	40	...	13.5	
3	4	Tosin Adarabioyo	eng ENG	DF	Fulham	23-159	1997	22.0	0	17	...	9.0	
4	5	Adrián	es ESP	GK	Liverpool	34-058	1987	3.0	0	0	...	NaN	
...
500	501	Andi Zeqiri	ch SUI	FWDF	Brighton	21-253	1999	0.8	0	5	...	12.9	
501	502	Oleksandr Zinchenko	ua UKR	DF	Manchester City	24-077	1996	10.1	0	8	...	21.1	
502	503	Hakim Ziyech	ma MAR	FWMF	Chelsea	27-348	1993	8.0	1	22	...	22.2	
503	504	Kurt Zouma	fr FRA	DF	Chelsea	26-126	1994	16.0	4	15	...	10.8	
504	505	Martin Ødegaard	no NOR	MF	Arsenal	22-075	1998	2.6	0	3	...	17.8	

505 rows × 26 columns



```
In [48]: #This way we can copy the Players name if there are any accents or whatnot that may
df['Player'].unique()
```

```
Out[48]: array(['Patrick van Aanholt', 'Tammy Abraham', 'Che Adams',
'Tosin Adarabioyo', 'Adrián', 'Sergio Agüero', 'Ola Aina',
'Rayan Aït Nouri', 'Semi Ajayi', 'Nathan Aké', 'Marc Albrighton',
'Thiago Alcántara', 'Toby Alderweireld', 'Rúnar Alex Rúnarsson',
'Trent Alexander-Arnold', 'Ezgjani Alioski', 'Alisson', 'Allan',
'Dele Alli', 'Miguel Almirón', 'Marcos Alonso', 'Steven Alzate',
'Daniel Amartey', 'Ethan Ampadu', 'Joachim Andersen',
'Elliot Anderson', 'Felipe Anderson', 'Michail Antonio',
'Alphonse Areola', 'Stuart Armstrong', 'Kepa Arrizabalaga',
'Pierre-Emerick Aubameyang', 'Serge Aurier', 'Charlie Austin',
'Jordan Ayew', 'Luke Ayling', 'César Azpilicueta', 'Eric Bailly',
'Fabián Balbuena', 'George Baldock', 'Gareth Bale',
'Patrick Bamford', 'Phil Bardsley', 'Ross Barkley',
'Ashley Barnes', 'Harvey Barnes', 'Kyle Bartley', 'Chris Basham',
'Michy Batshuayi', 'Jan Bednarek', 'Donny van de Beek',
'Héctor Bellerín', 'Saïd Benrahma', 'Josh Benson',
'Christian Benteke', 'Jóhann Berg Guðmundsson', 'Sander Berge',
'Steven Bergwijn', 'Bernard', 'Bernardo', 'Ryan Bertrand',
'Yves Bissouma', 'Jayden Bogle', 'Willy Boly', 'Jarrod Bowen',
'Robbie Brady', 'Rhian Brewster', 'Josh Brownhill', 'Joe Bryan',
'Kean Bryan', 'Oliver Burke', 'Dan Burn', 'David Button',
'Oskar Buur', 'Willy Caballero', 'Gary Cahill', 'Tom Cairney',
'Dominic Calvert-Lewin', 'João Cancelo', 'Ian Carlo Poveda',
'Andy Carroll', 'Matty Cash', 'Kiko Casilla', 'Timothy Castagne',
'Jonny Castro', 'Ivan Cavaleiro', 'Edinson Cavani',
'Dani Ceballos', 'Ben Chilwell', 'Hamza Choudhury',
'Andreas Christensen', 'Ciaran Clark', 'Nathaniel Clyne',
'Conor Coady', 'Séamus Coleman', 'Aaron Connolly', 'Liam Cooper',
'Jack Cork', 'Hélder Costa', 'Vladimír Coufal', 'Aaron Cresswell',
'Patrick Cutrone', 'Stuart Dallas', 'Scott Dann', 'Karl Darlow',
'Ben Davies', 'Tom Davies', 'Keinan Davis', 'Leif Davis',
'Craig Dawson', 'Kevin De Bruyne', 'Liam Delap', 'Fabian Delph',
'Leander Dendoncker', 'Mbaye Diagne', 'Ibrahima Diallo',
'Grady Diangana', 'Raphael Dias Belloli', 'Rúben Dias',
'Eric Dier', 'Lucas Digne', 'Virgil van Dijk', 'Issa Diop',
'Moussa Djenepo', 'Matt Doherty', 'Gabriel Dos Santos',
'Abdoulaye Doucouré', 'Martin Dúbravka', 'Paul Dummett',
'Lewis Dunk', 'Jimmy Dunne', 'Ederson', 'Kyle Edwards',
'John Egan', 'Ahmed Elmohamady', 'Mohamed Elneny', 'Jonny Evans',
'Eberechi Eze', 'Łukasz Fabiański', 'Fabinho', 'Bruno Fernandes',
'Federico Fernández', 'Fernandinho', 'Sam Field',
'Roberto Firmino', 'John Fleck', 'Phil Foden', 'Wesley Fofana',
'Pablo Fornals', 'Fraser Forster', 'Timothy Fosu-Mensah',
'Ryan Fraser', 'Fred', 'Ryan Fredericks', 'Christian Fuchs',
'Darnell Furlong', 'Conor Gallagher', 'Eric García',
'Dwight Gayle', 'David de Gea', 'Anwar El Ghazi', 'Kieran Gibbs',
'Morgan Gibbs-White', 'Billy Gilmour', 'Olivier Giroud',
'Ben Godfrey', 'André Gomes', 'Joe Gomez', 'Anthony Gordon',
'Karlan Grant', 'Demarai Gray', 'Jack Grealish', 'Mason Greenwood',
'Pascal Groß', 'Kamil Grosicki', 'Vicente Guaita',
'İlkay Gündoğan', 'Antwoine Hackford', 'Sébastien Haller',
'Rekeem Harper', 'Jack Harrison', 'Kortney Hause', 'Kai Havertz',
'Isaac Hayden', 'Michael Hector', 'Ahmed Hegazi', 'Dean Henderson',
'Jordan Henderson', 'Jeff Hendrick', 'Pablo Hernández',
'Son Heung-min', 'Ki-Jana Hoeser', 'Rob Holding', 'Mason Holgate',
'Conor Hourihane', 'Callum Hudson-Odoi', 'Niall Huggins',
```

'Pierre Højbjerg', 'Odion Ighalo', 'Kelechi Iheanacho',
'Danny Ings', 'Branislav Ivanović', 'Alex Iwobi', 'Phil Jagielka',
'Alireza Jahanbakhsh', 'Daniel James', 'Reece James',
'Alexandre Jankewitz', 'Gabriel Jesus', 'Raúl Jiménez',
'Joelinton', 'Ben Johnson', 'Sam Johnstone', 'Curtis Jones',
'Jorginho', 'Willian José', 'Diogo Jota', 'James Justin',
'Ozan Kabak', 'Aboubakar Kamara', 'Harry Kane', 'N'Golo Kanté',
'Moise Kean', 'Michael Keane', 'Neeskens Kebano', 'Naby Keïta',
'Caoimhín Kelleher', 'Jonjoe Kenny', 'Reda Khadra', 'Max Kilman',
'Joshua King', 'Mateusz Klich', 'Robin Koch', 'Sead Kolašinac',
'Ezri Konsa', 'Cheikhou Kouyaté', 'Mateo Kovačić', 'Emil Krafth',
'Filip Krovinić', 'Alexandre Lacazette', 'Adam Lallana',
'Érik Lamela', 'Tariq Lampitey', 'Manuel Lanzini',
'Aymeric Laporte', 'Jamaal Lascelles', 'Maxime Le Marchand',
'Mario Lemina', 'Bernd Leno', 'Jamal Lewis', 'Victor Lindelöf',
'Jesse Lingard', 'Jake Livermore', 'Diego Llorente', 'Hugo Lloris',
'Giovani Lo Celso', 'Ruben Loftus-Cheek', 'Kevin Long',
'Shane Long', 'Matthew Longstaff', 'Sean Longstaff',
'Ademola Lookman', 'Max Lowe', 'Matthew Lowton', 'David Luiz',
'Douglas Luiz', 'John Lundstram', 'Alexis Mac Allister',
'James Maddison', 'Harry Maguire', 'Riyad Mahrez',
'Ainsley Maitland-Niles', 'Josh Maja', 'Sadio Mané',
'Javier Manquillo', 'Fernando Marçal', 'Solly March', 'Pablo Marí',
'Anthony Martial', 'Martinelli', 'Emiliano Martínez',
'Arthur Masuaku', 'Juan Mata', 'Jean-Philippe Mateta',
'Nemanja Matić', 'Joël Matip', 'Neal Maupay', 'James McArthur',
'Oliver McBurnie', 'Alex McCarthy', 'James McCarthy',
'John McGinn', 'David McGoldrick', 'Dwight McNeil',
'Scott McTominay', 'Ben Mee', 'Benjamin Mendy', 'Edouard Mendy',
'Nampalys Mendy', 'Illan Meslier', 'Luka Milivojević',
'James Milner', 'Yerry Mina', 'Takumi Minamino', 'Tyrone Mings',
'Tyrick Mitchell', 'Aleksandar Mitrović', 'Jakub Moder',
'Jayson Molumby', 'Wes Morgan', 'Mason Mount', 'Lucas Moura',
'Lys Mousset', 'João Moutinho', 'Joel Mumbongo', 'Jacob Murphy',
'Shkodran Mustafi', 'Marvelous Nakamba', 'Wilfred Ndidi',
'Tanguy Ndombele', 'Reiss Nelson', 'Pedro Neto', 'Rúben Neves',
'Eddie Nketiah', 'Niels Nkounkou', 'Dan Nlundulu', 'Mark Noble',
'Oliver Norwood', 'Jack O'Connell', 'Dara O'Shea',
'Michael Obafemi', 'Denis Odoi', 'Angelo Ogbonna', 'Robin Olsen',
'Josh Onomah', 'Divock Origi', 'Ben Osborn', 'Owen Otasowie',
'Alex Oxlade-Chamberlain', 'Emerson Palmieri', 'Thomas Partey',
'Rui Patrício', 'Bailey Peacock-Farrell', 'Lee Peltier',
'Nicolas Pépé', 'Matheus Pereira', 'Ricardo Pereira',
'Ayoze Pérez', 'Kalvin Phillips', 'Matt Phillips',
'Nathaniel Phillips', 'Jordan Pickford', 'Erik Pieters',
'Daniel Podence', 'Paul Pogba', 'Nick Pope', 'Dennis Praet',
'Davy Pröpper', 'Christian Pulisic', 'Aaron Ramsdale',
'Jacob Ramsey', 'Kayne Ramsey', 'Darren Randolph',
'Marcus Rashford', 'Tim Ream', 'Nathan Redmond', 'Harrison Reed',
'Sergio Reguilón', 'Bobby Reid', 'Declan Rice', 'Lewis Richardson',
'Richarlison', 'Jairo Riedewald', 'Matt Ritchie', 'Tyler Roberts',
'Andrew Robertson', 'Antonee Robinson', 'Callum Robinson',
'Jack Robinson', 'Hal Robson-Kanu', 'Marek Rodák', 'Joe Rodon',
'Rodri', 'Rodrigo', 'James Rodríguez', 'Jay Rodriguez',
'Oriol Romeu', 'Antonio Rüdiger', 'Mathew Ryan',
'Allan Saint-Maximin', 'Romain Saïss', 'Bukayo Saka',

```
'Mamadou Sakho', 'Mohamed Salah', 'Mohammed Salisu',
'Davinson Sánchez', 'Robert Sánchez', 'Morgan Sanson',
'Romaine Sawyers', 'Dane Scarlett', 'Fabian Schär',
'Jeffrey Schlupp', 'Kasper Schmeichel', 'Nélson Semedo',
'Jamie Shackleton', 'Xherdan Shaqiri', 'Billy Sharp', 'Luke Shaw',
'Jonjo Shelvey', 'Shola Shoretire', 'Gylfi Sigurðsson',
'Bernardo Silva', 'Fábio Silva', 'Thiago Silva', 'Moussa Sissoko',
'Islam Slimani', 'William Smallbone', 'Emile Smith-Rowe',
'Robert Snodgrass', 'Cédric Soares', 'Tomáš Souček',
'Çağlar Söyüncü', 'Zack Steffen', 'Dale Stephens', 'Jack Stephens',
'Raheem Sterling', 'Enda Stevens', 'John Stones', 'Pascal Struijk',
'Japhet Tanganga', 'Matt Targett', 'James Tarkowski', 'Percy Tau',
'Charlie Taylor', 'Neil Taylor', 'Allan Tchaptchet',
'Nathan Tella', 'Alex Telles', 'Kenny Tete', 'Luke Thomas',
'Youri Tielemans', 'Kieran Tierney', 'James Tomkins',
'Fikayo Tomori', 'Ferrán Torres', 'Cenk Tosun', 'Andros Townsend',
'Conor Townsend', 'Adama Traoré', 'Bertrand Traoré', 'Trézéguet',
'Leandro Trossard', 'Kostas Tsimikas', 'Axel Tuanzebe',
'Cengiz Ünder', 'Yan Valery', 'Jamie Vardy', 'Joël Veltman',
'Jannik Vestergaard', 'Rúben Vinagre', 'Carlos Vinícius',
'Vitorinha', 'Jake Vokins', 'Matěj Vydra', 'Theo Walcott',
'Kyle Walker', 'Kyle Walker-Peters', 'Aaron Wan-Bissaka',
'Joel Ward', 'James Ward-Prowse', 'Ollie Watkins', 'Caleb Watts',
'Adam Webster', 'Danny Welbeck', 'Timo Werner', 'Ashley Westwood',
'Ben White', 'Georginio Wijnaldum', 'Brandon Williams',
'Neco Williams', 'Rhys Williams', 'Willian', 'Joe Willock',
'Callum Wilson', 'Harry Winks', 'Chris Wood', 'Granit Xhaka',
'Andriy Yarmolenko', 'DeAndre Yedlin', 'Okay Yokuşlu',
'Wilfried Zaha', 'Andre-Frank Zambo Anguissa', 'Andi Zeqiri',
'Oleksandr Zinchenko', 'Hakim Ziyech', 'Kurt Zouma',
'Martin Ødegaard'], dtype=object)
```

```
In [49]: #Filter to the Players we want to observe, OR statement in middle.
Name_1 = 'Raheem Sterling'
Name_2 = 'Diogo Jota'
Player_1_Team = df.loc[df['Player'] == Name_1, 'Squad'].item()
Player_2_Team = df.loc[df['Player'] == Name_2, 'Squad'].item()
df1 = df[(df['Player'] == Name_1) | (df['Player'] == Name_2)].reset_index()
```

```
In [50]: Player_1_Team
```

```
Out[50]: 'Manchester City'
```

```
In [51]: Player_2_Team
```

```
Out[51]: 'Liverpool'
```

```
In [52]: df1
```

Out[52]:

	index	Rk	Player	Nation	Pos	Squad	Age	Born	90s	Gls	...	Dist	FK	PK
0	217	218	Diogo Jota	pt POR	FW	Liverpool	24-088	1996	5.6	5	...	14.8	0	0
1	431	432	Raheem Sterling	eng ENG	FW	Manchester City	26-084	1994	20.9	9	...	13.3	2	0

2 rows × 27 columns



In [53]:

```
#Narrow Down to the needed info, axis = 1 makes it look for column headers
df1 = df1.drop(['index', 'Rk', 'Nation', 'Squad', 'Age', 'Born', '90s', 'FK', 'PK'],
```

In [54]:

```
df1
```

Out[54]:

	Player	Gls	Sh	SoT	SoT%	Sh/90	SoT/90	G/Sh	G/SoT	Dist	xG	npG	npG/Sh
0	Diogo Jota	5	20	11	55.0	3.58	1.97	0.25	0.45	14.8	2.4	2.4	0.12
1	Raheem Sterling	9	44	22	50.0	2.11	1.05	0.20	0.41	13.3	9.0	8.3	0.19



In [55]:

```
#Get parameters, [1: takes off the first column ' Player ' in this case and removes
params = list(df1.columns)
params = params[1:]
params
```

Out[55]:

```
['Gls',
 'Sh',
 'SoT',
 'SoT%',
 'Sh/90',
 'SoT/90',
 'G/Sh',
 'G/SoT',
 'Dist',
 'xG',
 'npG',
 'npG/Sh',
 'G-xG',
 'np:G-xG']
```

In [56]:

```
#Create lists that are ranges with the first player and second player values. Toup
ranges = []
a_values = []
b_values = []

for x in params:
    a = min(df1[params][x])
```

```

a = a - (a*.25)

b = max(df1[params][x])
b = b +(b*.25)

ranges.append((a,b))

#Find a way to assign the players that we are looking at into a value
for x in range(len(df1['Player'])):
    if df1['Player'][x] == Name_1 :
        a_values = df1.iloc[x].values.tolist()
    if df1['Player'][x] == Name_2 :
        b_values = df1.iloc[x].values.tolist()

a_values = a_values[1:]
b_values = b_values[1:]

values = [a_values,b_values]

```

In [57]: values

```

Out[57]: [[np.int64(9),
np.int64(44),
np.int64(22),
np.float64(50.0),
np.float64(2.11),
np.float64(1.05),
np.float64(0.2),
np.float64(0.41),
np.float64(13.3),
np.float64(9.0),
np.float64(8.3),
np.float64(0.19),
np.float64(0.0),
np.float64(0.7)],
[ np.int64(5),
np.int64(20),
np.int64(11),
np.float64(55.0),
np.float64(3.58),
np.float64(1.97),
np.float64(0.25),
np.float64(0.45),
np.float64(14.8),
np.float64(2.4),
np.float64(2.4),
np.float64(0.12),
np.float64(2.6),
np.float64(2.6)]]

```

In [58]: *#Titles*

```

title = dict(
title_name = Name_1,
title_color = 'red',
subtitle_name = Player_1_Team,

```

```
subtitle_color = 'red',
title_name_2 = Name_2,
title_color_2 = 'blue',
subtitle_name_2 = Player_2_Team,
subtitle_color_2 = 'blue',
tile_fontsize = 18,
subtitle_fontsize = 15
)

endnote = '@TimothyDill \ndata via FBRef / Statsbomb'
```

```
In [59]: radar = Radar(fontfamily='Arial')

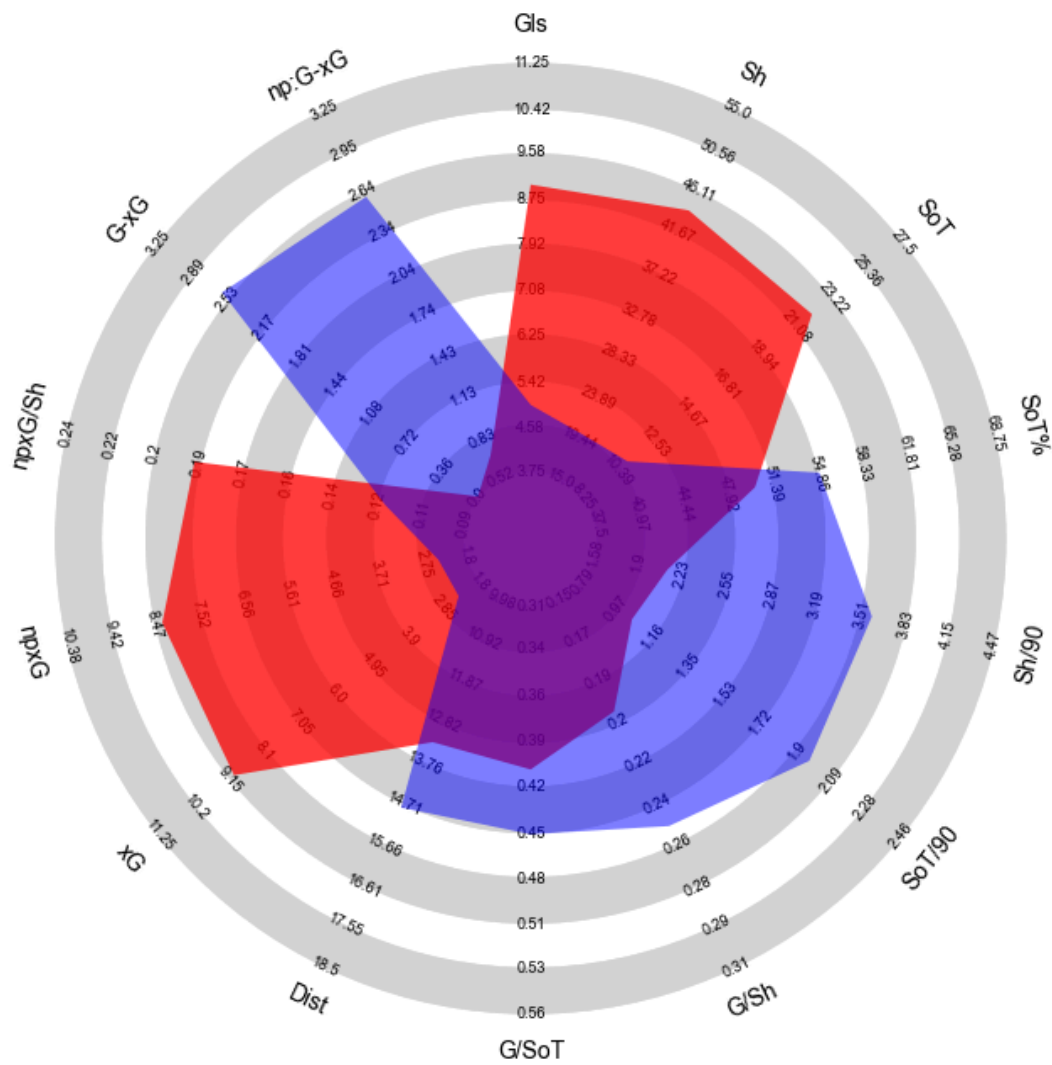
fig,ax = radar.plot_radar(ranges = ranges, params = params, values = values,
radar_color = ('red' , 'blue'),
alphas = (.75,.5), title = title, endnote = endnote,
compare = True)
```


Raheem Sterling

Manchester City

Diogo Jota

Liverpool



Inspired By: Statsbomb / Rami Moghadam
@TimothyDill
data via FBRef / Statsbomb