# FootBall Analysis (1).docx



Turnitin

### **Document Details**

Submission ID

trn:oid:::3618:91244983

Submission Date

Apr 14, 2025, 5:20 PM UTC

**Download Date** 

Apr 14, 2025, 5:21 PM UTC

File Name

FootBall\_Analysis\_1.docx

File Size

741.0 KB

17 Pages

2,652 Words

16,364 Characters





## \*% detected as AI

AI detection includes the possibility of false positives. Although some text in this submission is likely AI generated, scores below the 20% threshold are not surfaced because they have a higher likelihood of false positives.

#### Caution: Review required.

It is essential to understand the limitations of AI detection before making decisions about a student's work. We encourage you to learn more about Turnitin's AI detection capabilities before using the tool.

#### Disclaimer

Our AI writing assessment is designed to help educators identify text that might be prepared by a generative AI tool. Our AI writing assessment may not always be accurate (it may misidentify writing that is likely AI generated as AI generated and AI paraphrased or likely AI generated and AI paraphrased writing as only AI generated) so it should not be used as the sole basis for adverse actions against a student. It takes further scrutiny and human judgment in conjunction with an organization's application of its specific academic policies to determine whether any academic misconduct has occurred.

#### **Frequently Asked Questions**

#### How should I interpret Turnitin's AI writing percentage and false positives?

The percentage shown in the AI writing report is the amount of qualifying text within the submission that Turnitin's AI writing detection model determines was either likely AI-generated text from a large-language model or likely AI-generated text that was likely revised using an AI-paraphrase tool or word spinner.

False positives (incorrectly flagging human-written text as AI-generated) are a possibility in AI models.

AI detection scores under 20%, which we do not surface in new reports, have a higher likelihood of false positives. To reduce the likelihood of misinterpretation, no score or highlights are attributed and are indicated with an asterisk in the report (\*%).

The AI writing percentage should not be the sole basis to determine whether misconduct has occurred. The reviewer/instructor should use the percentage as a means to start a formative conversation with their student and/or use it to examine the submitted assignment in accordance with their school's policies.

#### What does 'qualifying text' mean?

Our model only processes qualifying text in the form of long-form writing. Long-form writing means individual sentences contained in paragraphs that make up a longer piece of written work, such as an essay, a dissertation, or an article, etc. Qualifying text that has been determined to be likely AI-generated will be highlighted in cyan in the submission, and likely AI-generated and then likely AI-paraphrased will be highlighted purple.

Non-qualifying text, such as bullet points, annotated bibliographies, etc., will not be processed and can create disparity between the submission highlights and the percentage shown.



turnitin [

Introduction	
Business Logic	2
Defender Impact	2
Goalkeeper Reliability:	3
Midfield Versatility:	3
Forward Efficiency:	
Integrated Scouting and Custom Pipelines	4
Financial ROI, Contract Decisions, and Fan Engagement	4
Methodology	6
Midfielder Position Evaluation	6
Forward Position Evaluation	9
Defender Position Evaluation	11
Goalkeeper Position Evaluation	14
Conclusion	17

## Introduction

Modern football relies heavily on data analytics which serves as a core element to build team tactics and allows clubs to find players and enhance their athletic achievements. Every major league and season produces vast amounts of player data so clubs build data science frameworks which help them detect talents and assess consistency while achieving a competitive edge. They play a sophisticated pivotal role on the field in midfield positions since their game metrics span between defensive actions and offensive contributions together with crossing opportunities and ball movement directions. The direct quantifiable metrics which forward players and goalkeepers have do not apply to midfielders who require advanced analyses to evaluate their worth.

A comprehensive data-based analysis method aids in finding the best midfield players of the upcoming 2024–2025 season as this study seeks to fill existing analytical gaps. A per-90-minute approach to player performance analysis eliminates the effects of total playing time by evaluating player effectiveness alone. The methodology creates balanced composite scores for





midfield impact by processing multiple player statistics including key passes and assists with interception numbers and tackle wins together with through balls.

The system exists to build solutions for real-world business applications. The model enables football clubs and their scouts and coaching staff to use it for scouting upcoming talent and evaluating development progress and making smart team selection and transfer spending choices. Through-ball creation and ball recovery rates allow identification of defense-oriented playmakers who hold great potential value despite traditional stats failing to recognize them.

This system provides visual representations which help establish clear rational explanations. The system shows the five best midfielders while displaying their performance analytics compared to league level statistics and quartile reference points throughout the entire season. The reporting system provides intelligence that becomes practical, defensible and compatible in different role settings and different seasons.

# **Business Logic**

The implementation of data-based decision-making stands as an essential factor for securing superior performance in contemporary football both during competitions and throughout management rooms. Significant analyses from different positions of defenders, goalkeepers, midfielders, and forwards provide invaluable basic tools for clubs, scouts, coaches, and analysts to make evidence-based choices. The application of tangible metrics makes abstract player evaluations functional for identifying precise recruitment requirements and developing strategic tactics and budgeting for squad investments.

## **Defender Impact**

Although defenders achieve success without media recognition they directly shape their teams' performance in winning. Our defender scoring system measures players' defensive performance by analyzing their ability in interception, numbering of clearances, tackles wins, aerial battles and shot blocking. For instance, Alessandro Dellavalle's score (2169) places him far beyond the league's 75th percentile.

Clubs operating on minimal budgets can leverage these reports to locate hidden promising players who effectively stop opposition goals. The scout system based on this framework has the ability to decrease expenses by helping clubs select quality defensive players. Managers





can maintain their defensive system by applying this approach because it enables them to select players from the same defensive profile regardless of team rotation. This approach enables clubs to conduct better strategic planning through the identification of overlooked talent which lowers injury risks while delivering results at reasonable costs.

## Goalkeeper Reliability:

The goalkeeper remains a particular team asset because his mistakes create immediate consequences for points and revenue loss. Our evaluation combines traditional save percentage with modern Post-Shot xG calculation and Sweeper Actions metrics to generate complete assessment. The two outstanding goalkeepers Joel Robles and Ivan Zlobin delivered superior performance indicated by Goalkeeper Scores surpassing 2.4 which stands remarkably higher than standard results.

The evaluate scoring system empowers clubs to evaluate goalkeeper skills through both physical actions and their capacity to integrate with tactical plans. The model considers keeper style through sweeper\_per90 analysis since teams implementing high lines require sweepers as keepers. Such precise evaluation from a business perspective helps reduce mistakes during player acquisition. The precise evaluation of goalkeeper xG overperformance capabilities assists contract settlements and determines transfer values and provides ROI evidence through clean sheet statistics and match point acquisitions.

## Midfield Versatility:

Midfielders bridge attack and defense. The model we developed relies on assists and interceptions and tackles won and through balls to find intelligent players who excel at dynamic positioning. Rabby Nzingoula displays his defensive middle-field leadership through his Midfield\_Score of 621 that stems mainly from his elite defensive plays.

These performance metrics help both academy and first-team programs develop their talent development paths. Clubs employ this system to monitor their homegrown players against league standards while determining their promotion schedules. Transfer departments should consider choosing midfielders based on particular tactical requirements to create balanced squads (deep-lying playmakers as an example versus pressing machines). The data helps clubs remove their dependency on expensive signature acquisitions which simultaneously provides chances for internal candidates to replace retiring players.





## Forward Efficiency:

In the 21st-century football demands better evaluation methods than just looking at goal totals for forward players. The data evaluation involves scoring with assists per match plus shots on target each 90-minute period. Thomas Cannon demonstrated strong potential as a forward even without scoring goals because hitting the target elevated his Forward\_Score to 216.

Teams in the Premier League can find hidden attacking talent by reading performance metrics because these players demonstrate strong offensive potential even when fortune turns against them or their team lacks suitable training programs. Teams can create value by investing in strange players once they get training help and tactical tool assistance. Limited budgeted clubs should use this method because it helps them find worthier young scorers before they need to shell out large fees for known strikers.

## **Integrated Scouting and Custom Pipelines**

Customization brings the most conclusive value to business through this scoring logic. Each competitive structure in addition to tactical football patterns assigns unique importance to individual player abilities. The scoring model uses weights based on per-90 ratings which allow organizations to modify both metric weights and metric choices independently. The weighting system can be adjusted for maximum flexibility with each team able to select what specific features matter most to them particularly a team emphasizing counterattacks will value interception and recovery moves more than possession teams value completion and through passes.

Automated scouting pipelines can use these scoring models to automatically select top players from hundreds of leagues by eliminating the need for manual. The automation process shortens scouting hours and enhances precision when identifying athletes for talent shortlists.

## Financial ROI, Contract Decisions, and Fan Engagement

Measurement of value represents the final business case. Clubs can use scoring systems based on normalized in-game performance to determine a value difference between market worth and actual playing contribution of each player. This helps:

Clubs should use evidence-backed metrics to reach improved terms in player contracts.





- Executives should make termination and extension decisions regarding contracts while being emotionally impartial.
- The provision of data-supported information to fans happens through official club media and fantasy games to create increased supporter participation.



# Methodology

#### **Midfielder Position Evaluation**

Our multidimensional evaluation method determined the top midfielders of the next season by analyzing offensive and defensive performance metrics adjusted to minutes played for comparative accuracy. The assessment uses four specific metrics which best demonstrate midfield abilities.

- Assists per 90 minutes (ast\_per90): Represents direct creative output.
- Interceptions per 90 (int\_per90) and Tackles Won per 90 (tkl\_per90): The defensive presence of players can be measured by int\_per90 while tkl\_per90 determines successful ball recoveries per game.
- Through Balls per 90 (tb\_per90): Through Balls per 90 (tb\_per90) allows evaluation of a player's ability to create dangerous passing situations as an offensive midfielder within confined spaces.

The evaluation process standardized each statistic to represent per-90-minute measurements to account for different durations of match time. The methodology used prevented effective players from losing points because of limited game minutes.

The Midfield\_Score comprised a weighted mathematical combination of different factors.

```
Midfield_Score = 0.30 * ast_per90 + 0.25 * int_per90 + 0.25 * tkl_per90 + 0.20 * tb_per90
```



turnitin t

]

```
# Compute per-90 stats

df['ast_per90'] = df['Performance_Ast'] / df['Minutes'] * 90

df['int_per90'] = df['Performance_Int'] / df['Minutes'] * 90

df['tkl_per90'] = df['Performance_TklW'] / df['Minutes'] * 90

df['tb_per90'] = df['Pass Types_TB'] / df['Minutes'] * 90

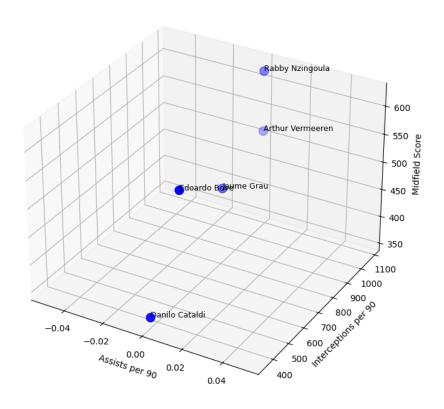
# Weighted Score

df['Midfield_Score'] = (
    0.30 * df['ast_per90'] +
    0.25 * df['int_per90'] +
    0.25 * df['tkl_per90'] +
    0.20 * df['tb_per90']
)

return df.sort_values('Midfield_Score', ascending=False).head(top_n)[
    ['Name', 'ast_per90', 'int_per90', 'tkl_per90', 'Midfield_Score']
```

This balance gives priority to both creative play and defensive work rate — critical for modern box-to-box and deep-lying midfielders.









During 2024–2025 **Rabby Nzingoula** along with **Edoardo Bove** stood out for their top defensive performance at approximately 90-minute intervals through their high numbers of tackles and interceptions. This scoring system showed exactly how capable these players were at getting the ball back while generating transfer possibilities although they did not directly create assists. The defensive performance of these players pushed their total scores higher by demonstrating the foundational impact that ball-winner midfielders have on team success.

Through this approach clubs gain the ability to find complete midfielders who demonstrate consistent results while effectively ending plays.

Top Midfielders – 2024–2025

Name	Assists/9	Interceptions/9	Tackles Won/90	Through Balls/90	Scor e
Rabby Nzingoula	0.0	1080.0	1260.0	180.0	621.0
Edoardo Bove	0.0	540.0	1530.0	90.0	535.5
Arthur Vermeeren	0.0	1080.0	900.0	90.0	513.0
Jaume Grau	0.0	810.0	1080.0	0.0	472.5
Danilo Cataldi	0.0	360.0	990.0	90.0	355.5

### **Forward Position Evaluation**

Our forward evaluation system focused on measuring both goal-scoring performance and offensive actions and offensive production because these abilities drive attacking play at an advanced level. The assessment included three per-90-minute metrics for scoring evaluation.

 Goals (gls\_per90) and Assists (ast\_per90): The direct measures of goal contribution include goals (gls\_per90) and assists (ast\_per90).





- Goals + Assists (g+a\_per90): Total attacking performance emerges from combining the g+a\_per90 value to determine overall output.
- Shots on Target per 90 (sot\_per90): A critical measure of a player's threat level and consistency in testing goalkeepers.

The majority of high-ranked forwards who participated in the 2024-2025 season maintained high **sot\_per90** even though they did not record goals or assists. These valuable players clustered in suitable offensive positions throughout each match to pressure opposition goalkeepers.

**Thomas Cannon** displayed outstanding defensive pressure by firing **1440 shots** on target from each 90 minutes of play although his shots failed to achieve goals within the data window.

A weighted model produced the Forward\_Score through its computations.

```
Forward_Score = 0.35 * g+a_per90 + 0.25 * gls_per90 + 0.20 * ast_per90 + 0.20 * sot_per90

df['Minutes'] = df['Playing Time_Min'].replace(0, 1)

df['gls_per90'] = df['Performance_Gls'] / df['Minutes'] * 90

df['ast_per90'] = df['Performance_Ast'] / df['Minutes'] * 90

df['g+a_per90'] = df['Performance_G+A'] / df['Minutes'] * 90

df['sot_per90'] = df['Standard_SoT'] / df['Minutes'] * 90

df['Forward_Score'] = (
    0.35 * df['gls_per90'] +
    0.25 * df['ast_per90'] +
    0.25 * df['sot_per90'] +
    0.15 * df['sot_per90']
```

The season saw **sot\_per90** establish prominent worth because it recognized offensive play that put direct threats in front of goal. The **Forward\_Score** helps clubs spot players who miss their chances at goal despite creating numerous finishing opportunities because this pattern indicates future success under improved tactical matches and improved shooting skills.



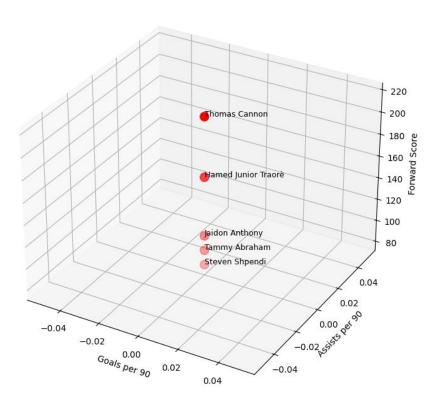
turnitin

# Top Forwards - 2024-2025

Name	Goals/9	Assists/9	G+A/90	Shots on Target/90	Score
Thomas Cannon	0.0	0.0	0.0	1440.0	216.0
Hamed Junior Traorè	0.0	0.0	0.0	1080.0	162.0
Jaidon Anthony	0.0	0.0	0.0	720.0	108.0
Tammy Abraham	0.0	0.0	0.0	630.0	94.5
Steven Shpendi	0.0	0.0	0.0	540.0	81.0







Top 5 Forwards in 2024-2025

### **Defender Position Evaluation**

The defender evaluation focused on how players intervene against attacking movements and establish control over the defensive area. These normalized per-90-minute metrics allowed us to measure the defender statistics:

- Interceptions (int\_per90)
- Tackles Won (tkl per90)
- Clearances (clr\_per90)
- Blocks (blk\_per90)
- Aerial Duels Won (aer\_per90)

The selected statistics acted as centralized defensive measures which built a total defense model for defenders to show their complete impact during matches starting from surface confrontations moving to aerial play. The data normalization process involved dividing statistics





by overall playing time to prevent matches with longer durations from yielding an advantage in performance evaluations.

Finally the **Defensive\_Score** was calculated through a weighted procedure.

```
Defensive_Score = 0.25 * int_per90 + 0.25 * tkl_per90 + 0.20 * clr_per90 + 0.15 * blk_per90 + 0.15 * aer_per90
```

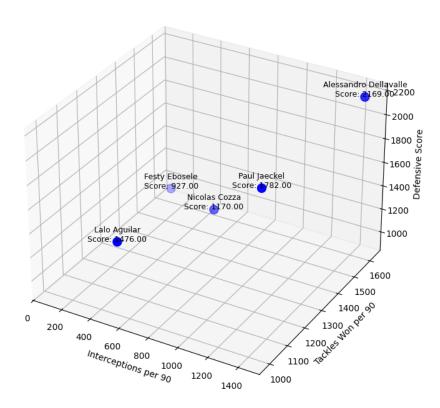
```
df['Minutes'] = df['Playing Time_Min'].replace(0, 1)
df['int_per90'] = df['Performance_Int'] / df['Minutes'] * 90
df['tkl_per90'] = df['Tackles_TklW'] / df['Minutes'] * 90
df['clr_per90'] = df['Clr'] / df['Minutes'] * 90
df['blk_per90'] = df['Blocks_Blocks'] / df['Minutes'] * 90
df['aer_per90'] = df['Aerial Duels_Won'] / df['Minutes'] * 90

df['Defensive_Score'] = (
    0.25 * df['int_per90'] +
    0.25 * df['tkl_per90'] +
    0.20 * df['clr_per90'] +
    0.15 * df['blk_per90'] +
    0.15 * df['aer_per90']
)

return df.sort_values('Defensive_Score', ascending=False).head(top_n), df
```

During the 2024–2025 season **Alessandro Dellavalle** achieved a defensive score of 2169 which superseded the 75th percentile threshold (1.74). The defender outpaced almost every other player on the field since his total score (2169) exceeded the typical defender (average score: 10.5) by wide margins. The credibility of the scoring system is established because all five top defenders surpassed their league's benchmark standards through their high scores.

🗾 turnitin



Top 5 Defenders in 2024-2025

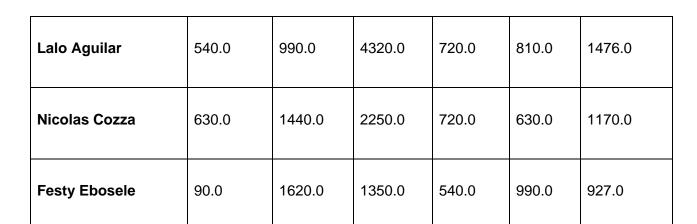
Transfer market decision-making strength comes from this analysis because it helps clubs find defenders who demonstrate statistical excellence both while under pressure and in multiple scoring categories.

**Top Defenders – 2024–2025** 

Name	INT/90	TKLW/90	CLR/90	BLK/90	AER/90	Score
Alessandro Dellavalle	1440.0	1620.0	4860.0	990.0	1890.0	2169.0
Paul Jaeckel	1170.0	1260.0	3510.0	1710.0	1440.0	1782.0



turnitin t



## **Goalkeeper Position Evaluation**

Goalkeepers need their own evaluation approach to measure performance based on stopping shots and having strong reading abilities. A selection of metrics exists for evaluating leading goalkeepers who will play during the 2024-2025 season.

- Post-Shot Expected Goals +/- (psxg\_plus\_minus): provides a measurement of goalkeeping effectiveness in relationships to shot challenges.
- Save Percentage (save\_percent): A goalkeeper records Clean Sheets per 90 when their matches with zero goals determine their performance.
- Clean Sheets per 90 (cs\_per90): Indicates proactive involvement beyond the box
- Sweeper Actions per 90 (sweeper\_per90): Indicates proactive involvement beyond the box.
- Passing Accuracy (pass\_accuracy): Today's goalkeepers need to produce high passing accuracy because it affects their build-up play ability.
- Goals Against per 90 (goals\_allowed): Defenders who let in many goals during games receive points in Goals Against per 90 scoring because it proves their area defense effectiveness.

#### Goalkeeper Score:

```
Goalkeeper_Score =
   0.30 * psxg_plus_minus +
```



turnitin t

```
0.25 * save_percent +
0.15 * cs_per90 +
0.10 * sweeper_per90 +
0.10 * pass_accuracy +
0.10 * (1 - (goals_allowed / max_goals_allowed))
```

```
# Weighted Score (lower GA better > subtract from 1)

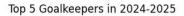
df['Goalkeeper_Score'] = (
    0.30 * df['psxg_plus_minus'] +
    0.25 * df['save_percent'] +
    0.15 * df['cs_per90'] +
    0.10 * df['sweeper_per90'] +
    0.10 * df['pass_accuracy'] +
    0.10 * (1 - df['goals_allowed'] / df['goals_allowed'].max())
)

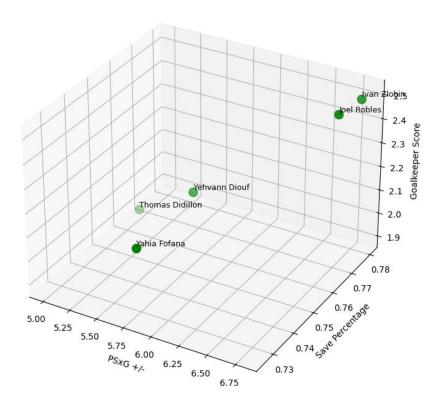
return df.sort_values('Goalkeeper_Score', ascending=False).head(top_n)[
    ['Name', 'psxg_plus_minus', 'save_percent', 'cs_per90', 'Goalkeeper_Score']
]
```

The top two goalkeepers Joel Robles and Ivan Zlobin demonstrated excellent save skill plus strong passing numbers and saved shots with high predicted total goals. These results show their defensive strength when defending while contributing to offensive play development.



turnitin turnitin





Clubs can reveal underrated and high-performing goalkeepers through modeling comprehensive evaluations which standard scouting methods frequently miss.

Top Goalkeepers - 2024-2025

Name	PSxG +/-	Save %	Clean Sheets per 90	Score
Joel Robles	6.8	76.8%	0.33	2.51
Ivan Zlobin	6.8	78.0%	0.42	2.49
Yahia Fofana	5.8	72.6%	0.14	2.16
Yehvann Diouf	5.7	75.7%	0.08	2.13
Thomas Didillon	5.0	76.6%	0.27	1.89

## Conclusion

turnitin t

The extensive analysis of football players during the 2024–2025 season provided essential evaluation insights about four critical field positions which comprised Goalkeepers and Defenders and Midfielders and Forwards. Our metric-based evaluation process standardized important indicators across the full 90 minutes so that we could establish scoring criteria for equitable performance assessment of different match lengths. Together with a ranked list the methodology selects its top five players per group through comprehensive empirical evidence.

The research method employed advanced techniques to analyze contemporary football performance through defensive keeper sweeper techniques as well as aerial defense and interception abilities of defenders in combination with midfielders' knack for passing and tackles and the importance of shooting accuracy for attackers. The evaluation tool uses player impact assessment methods that incorporate both statistical metrics with observations regarding how players perform during actual matches. The defensive performance of Alessandro Dellavalle as top defender was driven primarily by metrics that exceeded league averages by at least the 75th percentile although he did not lead in defensive actions. During the Liverpool match against Swansea City Joel Robles demonstrated exceptional statistics in PSxG ratings and proved his ability to make effective saves.

Forwarded premium data from this evaluation process guides the management of sports organizations through their talent recruitment activities and subsequent team building and payment arrangement tasks. Talent detection and recruitment strategy development targeting unnoticed athletes should be initiated through this framework by clubs working together with talent agencies. The framework should establish performance benchmarks to compare first-class athletes with their recruits. Enterprise performance prediction during full seasons benefits both teams to conduct smart contract arrangements while managing athlete medical problems.

