

Player Scouting Analysis for HSV Hamburg

DA_Talent presents a comprehensive data-driven approach to identify top talent for HSV Hamburg's summer transfer window. Our analysis focuses on four key positions: goalkeeper, striker, midfielder, and defender.



By Gerardo Jiménez



Agenda and Objectives

1

Data Collection and Analysis

UEFA CL 21/22 player statistics.

2

Database Creation

MySQL database with processed CSV files.

3

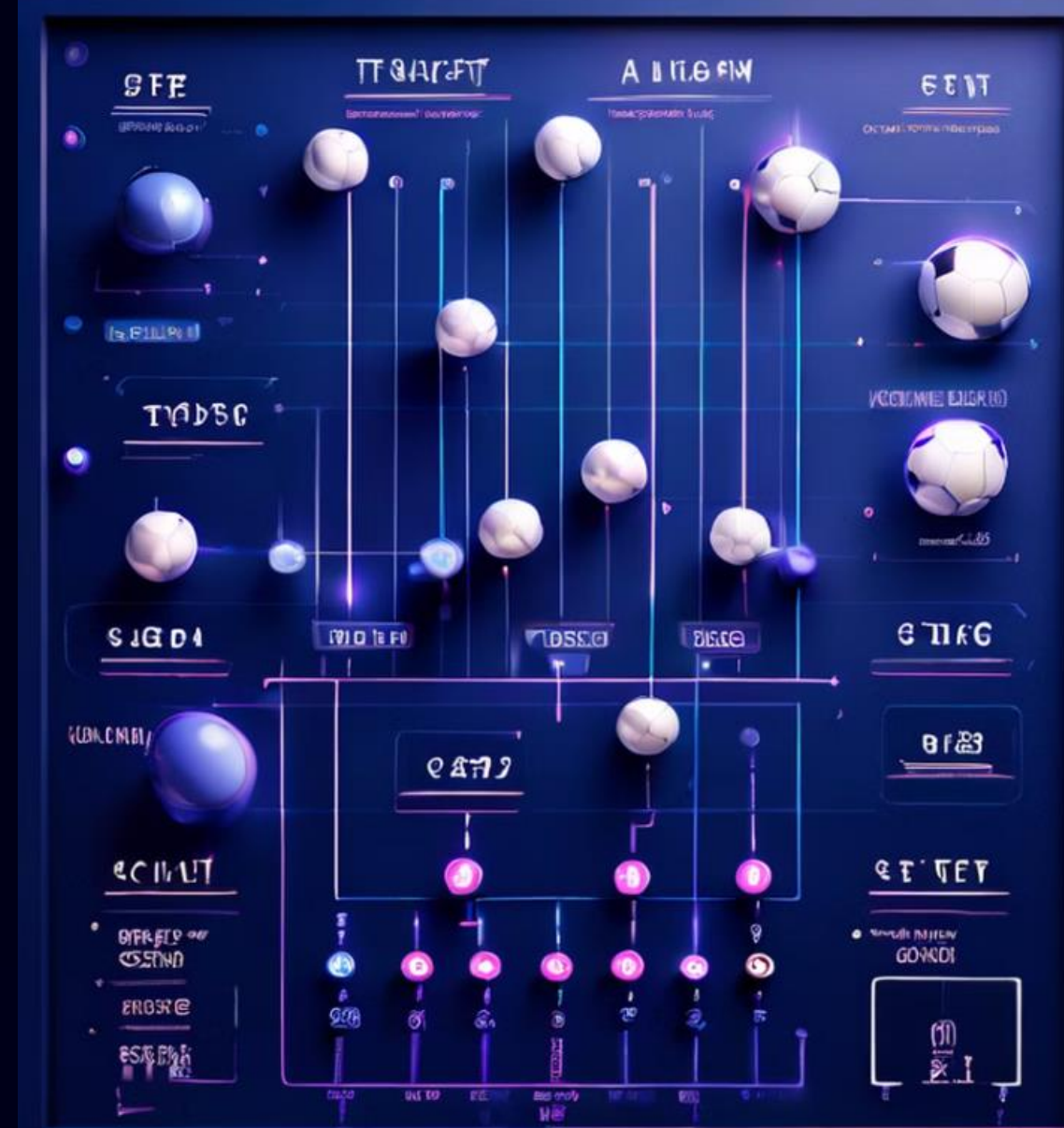
Query Development

Queries and subqueries, joins, and CTEs used for data extraction.

4

Visual Analysis

Generate insightful graphs to visualize player performance metrics.





Data Recovery and Analysis

Comprehensive Dataset

Utilised UEFA Champions League 21/22 player statistics from Kaggle.

Author: Ali Sultanov 

<https://www.kaggle.com/code/alisultanov/eda-champions-league-21-22/input>

Multiple Data Files

Processed and cleaned 8 CSV files containing various player metrics.

```
defending.csv
disciplinary_fmodified.csv
disciplinary.csv
distributon_fmodified.csv
distributon.csv
goalkeeping_fmodified.csv
goalkeeping.csv
goals_fmodified.csv
goals.csv
key_stats_fmodified.csv
key_stats_modified.csv
key_stats.csv
```

Python-Powered Cleaning

Employed Python scripts to ensure data accuracy and consistency.

UEFA CL 2021/2022 Season statistics

```
# import the pandas library and fuctions library
import pandas as pd
import functions as f
```

```
f.add_id_to_file() #Apply add_id_to_file function to add id column and check data for each csv file.
```

```
Number of rows before cleaning: 176
Number of rows after cleaning: 176
No rows with null values were deleted.
```


Database Creation

Star Topology Design

Optimised for efficient querying and analysis.

CSV Data Integration

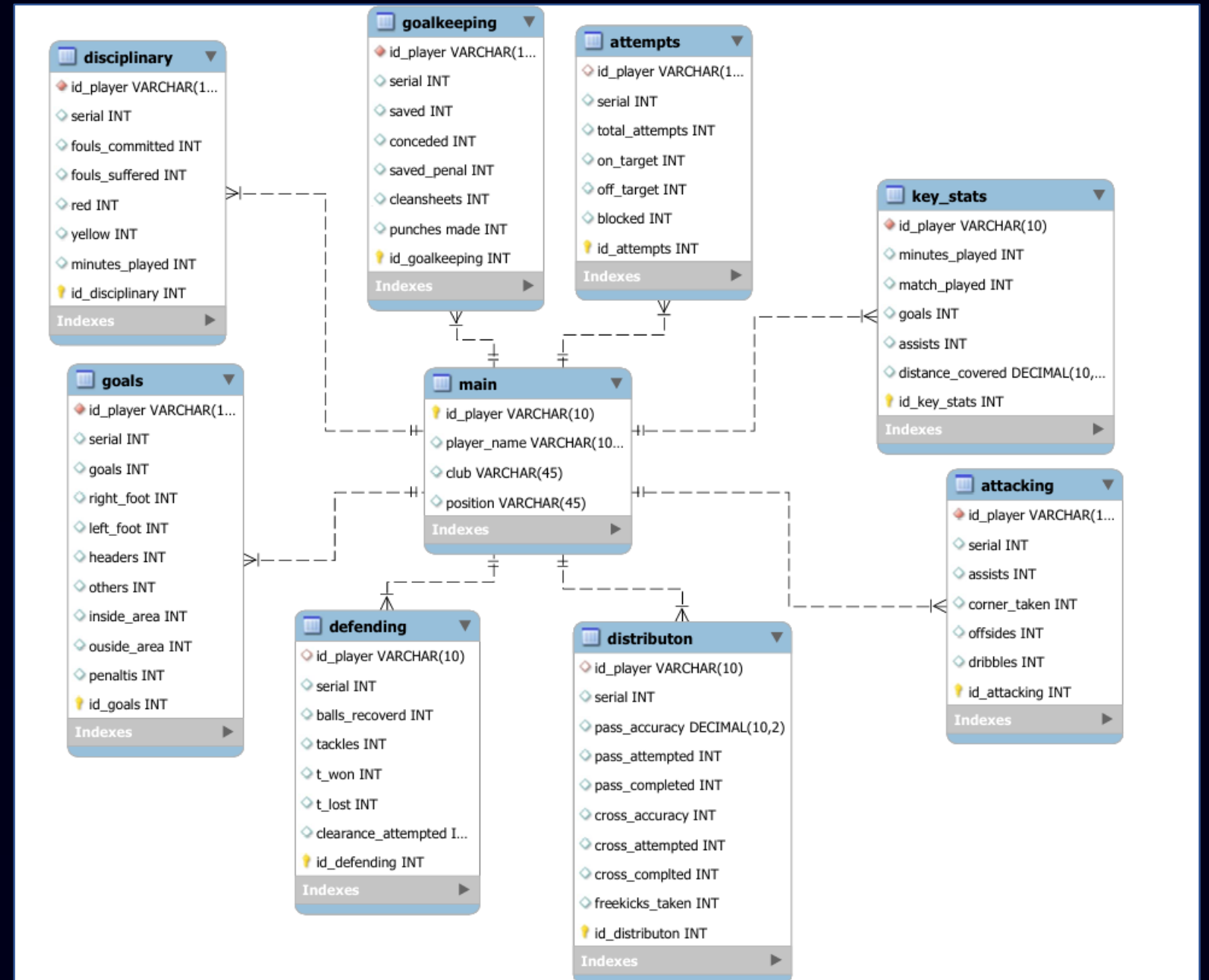
Seamless import of cleaned datasets.

Scalable Architecture

Prepared for future data additions and modifications.

```
-- Schema uc121_22
-----
CREATE SCHEMA IF NOT EXISTS `uc121_22` DEFAULT CHARACTER SET utf8mb4 COLLATE utf8mb4_0900_ai_ci ;
USE `uc121_22` ;

-- Table `uc121_22`.`main`
-----
CREATE TABLE IF NOT EXISTS `uc121_22`.`main` (
  `id_player` VARCHAR(10) NOT NULL,
  `player_name` VARCHAR(100) NULL DEFAULT NULL,
  `club` VARCHAR(45) NULL DEFAULT NULL,
  `position` VARCHAR(45) NULL DEFAULT NULL,
  PRIMARY KEY (`id_player`),
  UNIQUE INDEX `id_player_UNIQUE` (`id_player` ASC) VISIBLE)
```



Query Development and Data Export

1

Query Creation

Utilised subqueries, joins, and CTEs for comprehensive data extraction.

2

MySQL to Python Export

Seamless data transfer for advanced analysis and visualization.

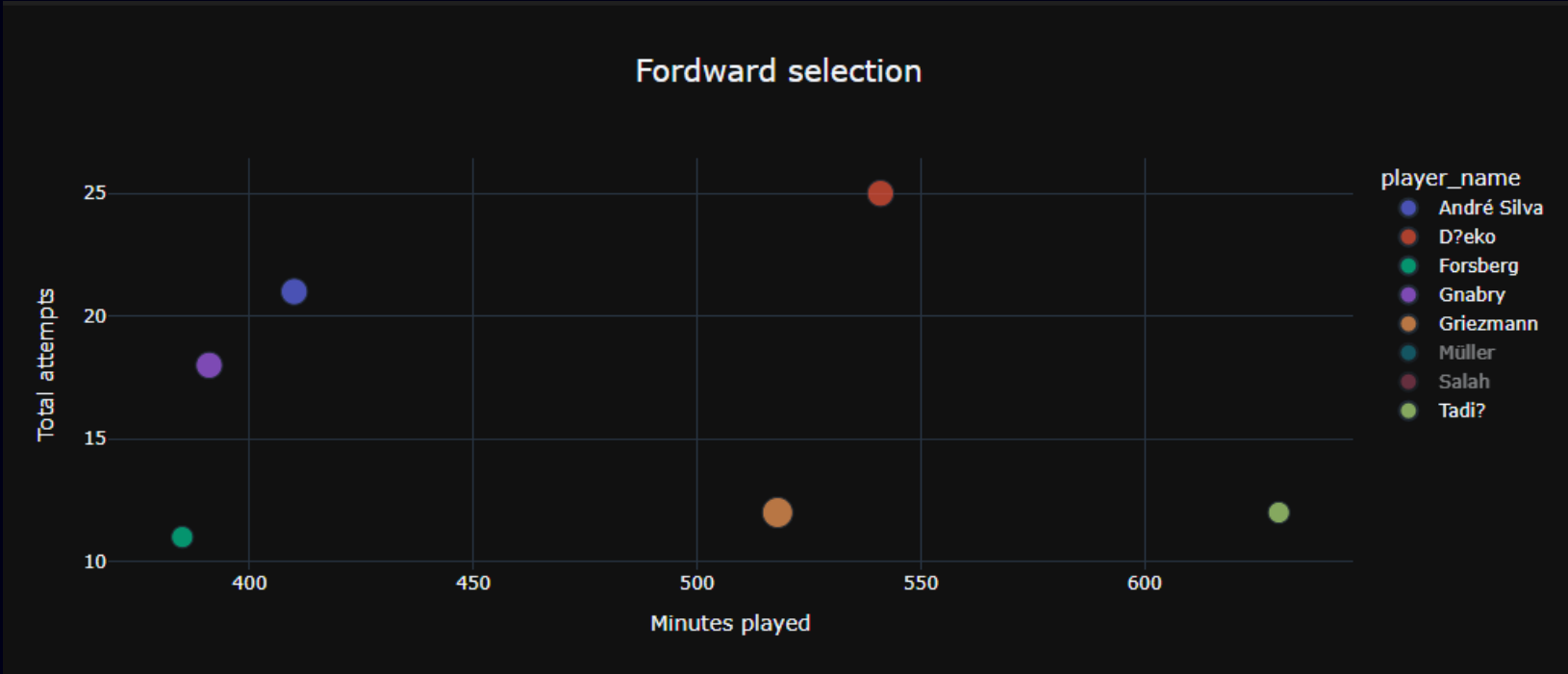
3

Data Transformation

Prepared datasets for position-specific player evaluations.



Graphical Analysis of Results

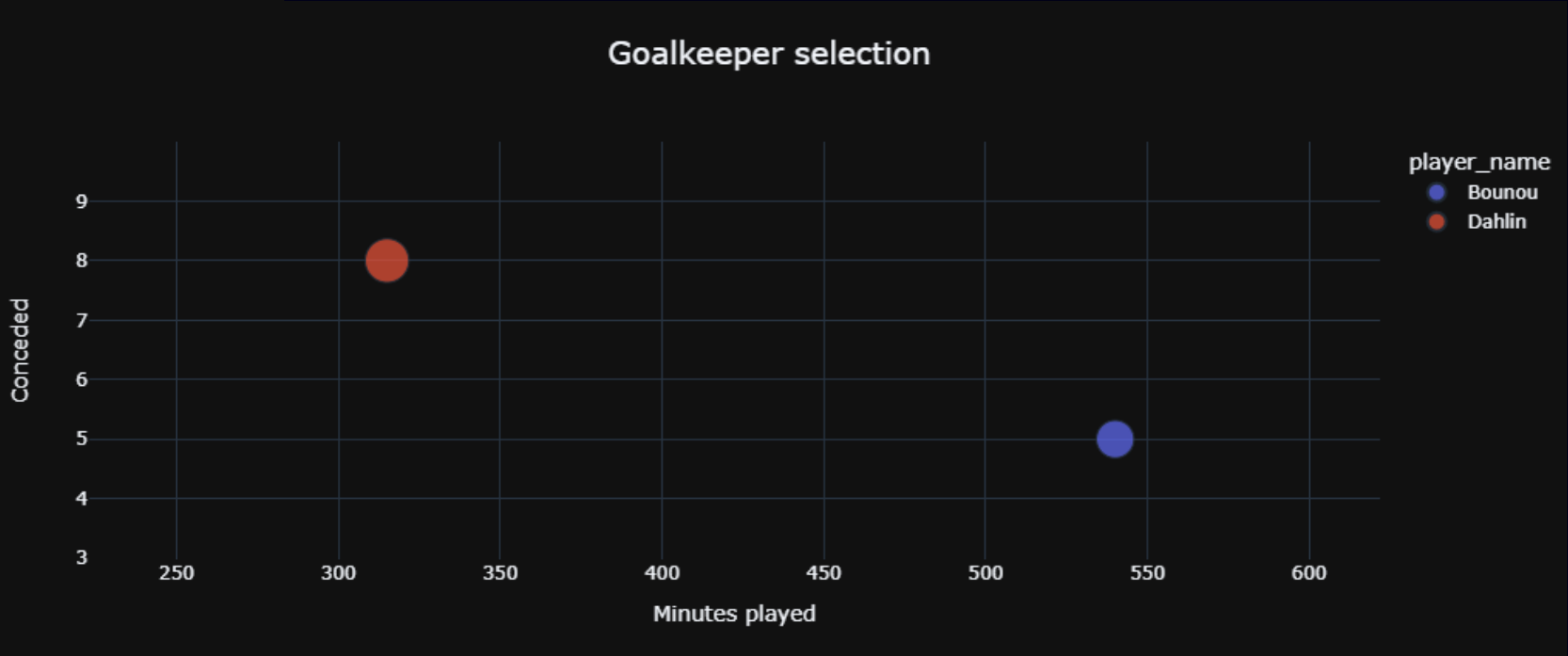


Performance Metrics Visualization

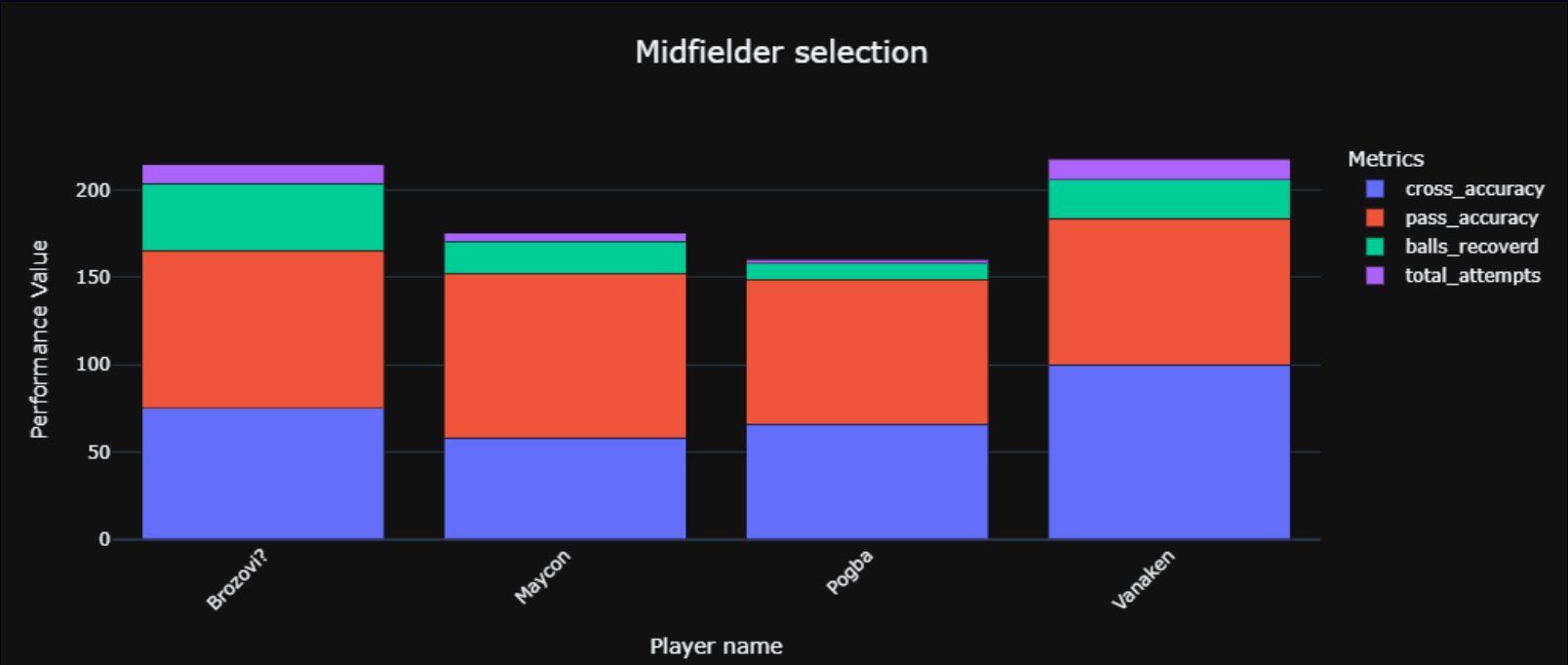
- Cumulative playing minutes greater than the average.
- Disciplined players with a maximum of 4 yellow cards and 0 red cards.

Performance Metrics Visualization

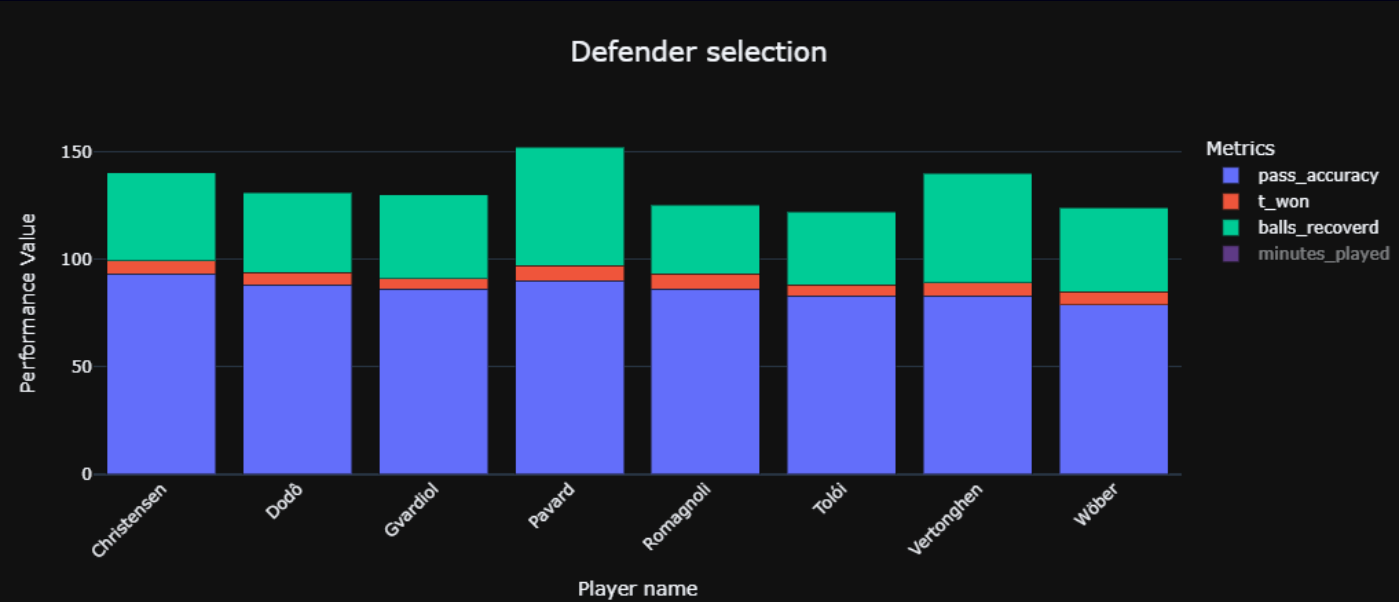
Created insightful graphs showcasing key player statistics for each position.



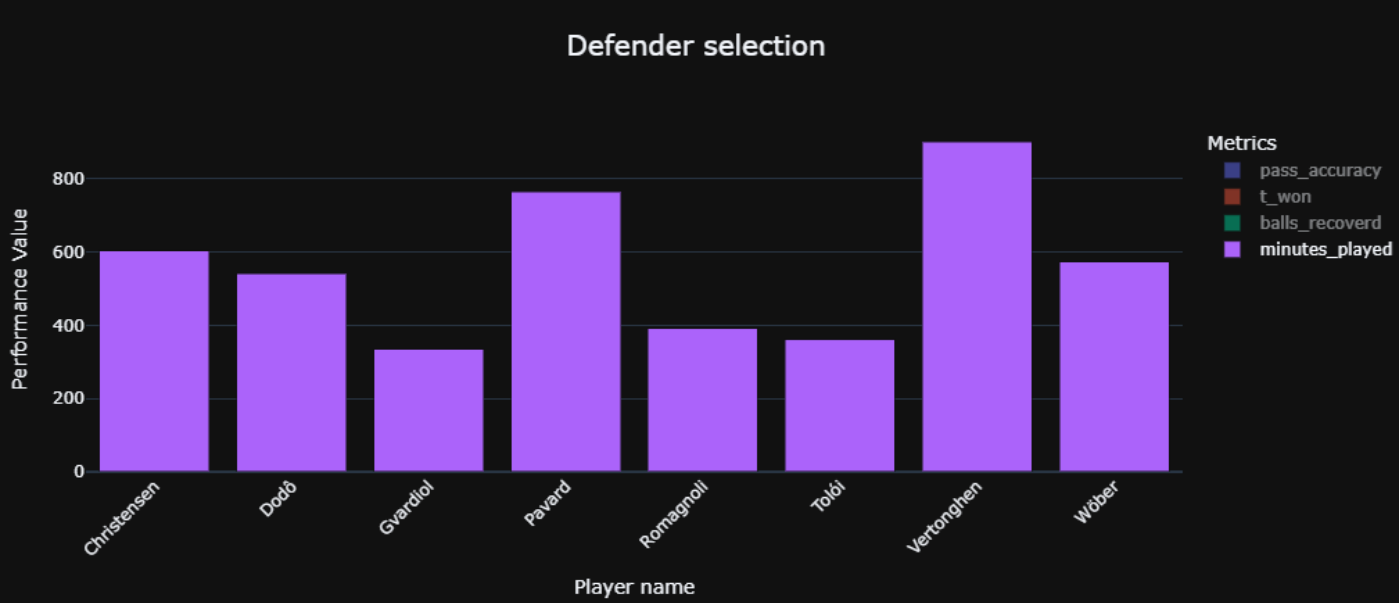
Graphical Analysis of Results



Performance Metrics Visualization



Performance Metrics Visualization



Key Findings and Recommendations



Goalkeeper Target

BOUNOU



Striker Prospect

DZEKO – ANDRE SILVA



Midfield Maestro

VANAKEN - BROZOVIK



Defensive Rock

DODô - WÖBER



Conclusion and Next Steps

Data-Driven Decisions

Our analysis provides a solid foundation for informed transfer decisions.

Scouting Focus

Recommend in-person scouting of the identified top prospects.

Continuous Monitoring

Suggest ongoing performance tracking of potential targets.

Strategy Refinement

Propose regular meetings to adjust scouting criteria based on team needs.