# Data Sources, Datasets, and Features Summary

Prepared for: Player Market & Sentiment Analysis Project

### 1) Data Sources

**Kaggle**: Public datasets used for social media sentiment (Twitter training/validation) and football/soccer player information. Kaggle was the primary source for curated CSVs containing tweets with sentiment labels and player/competition metadata.

**StatsBomb (Open Data)**: Used for structured football data such as competitions, players, injuries/impact or related attributes. StatsBomb's open data provides standardized schema for football analytics.

### 2) Collected Datasets (Files Uploaded)

File	Rows	Columns
twitter_training.csv	74681	4
twitter_validation.csv	999	4
dataset.csv	1301	30
player_injuries_impact.csv	656	42
player_valuations.csv	496606	5
competitions.csv	44	11
players.csv	32601	23

### 3) Features / Columns by Dataset

#### twitter\_training.csv

Path: /mnt/data/twitter\_training.csv

Shape: 74681 rows x 4 columns

Features: 2401, Borderlands, Positive, im getting on borderlands and i will murder you all,

#### twitter\_validation.csv

Path: /mnt/data/twitter\_validation.csv

Shape: 999 rows x 4 columns

Features: 3364, Facebook, Irrelevant, I mentioned on Facebook that I was struggling for motivation to go for a run the other day, which has been translated by Tom's great auntie as 'Hayley can't get out of bed' and told to his grandma, who now thinks I'm a lazy, terrible person ■

#### dataset.csv

Path: /mnt/data/dataset.csv Shape: 1301 rows x 30 columns

Features: p\_id2, start\_year, season\_days\_injured, total\_days\_injured, season\_minutes\_played, season\_games\_played, season\_matches\_in\_squad, total\_minutes\_played, total\_games\_played, dob, height\_cm, weight\_kg, nationality, work\_rate, pace, physic, fifa\_rating, position, age, cumulative\_minutes\_played, cumulative\_games\_played, minutes\_per\_game\_prev\_seasons, avg\_days\_injured\_prev\_seasons,

avg\_games\_per\_season\_prev\_seasons, bmi, work\_rate\_numeric, position\_numeric, significant\_injury\_prev\_season, cumulative\_days\_injured, season\_days\_injured\_prev\_season

#### player\_injuries\_impact.csv

Path: /mnt/data/player\_injuries\_impact.csv

Shape: 656 rows x 42 columns

Features: Name, Team Name, Position, Age, Season, FIFA rating, Injury, Date of Injury, Date of return, Match1\_before\_injury\_Result, Match1\_before\_injury\_Opposition, Match1\_before\_injury\_GD, Match1\_before\_injury\_Player\_rating, Match2\_before\_injury\_Result, Match2\_before\_injury\_Opposition, *Match2\_before\_injury\_GD*, Match2\_before\_injury\_Player\_rating, Match3\_before\_injury\_Result, Match3\_before\_injury\_Opposition, Match3\_before\_injury\_GD, Match3\_before\_injury\_Player\_rating, Match1\_missed\_match\_Result, Match1\_missed\_match\_Opposition, Match1\_missed\_match\_GD, Match2\_missed\_match\_Result, Match2\_missed\_match\_Opposition, Match2\_missed\_match\_GD, Match3\_missed\_match\_Result, *Match3\_missed\_match\_Opposition*, Match3\_missed\_match\_GD, Match1\_after\_injury\_Result, *Match1\_after\_injury\_Opposition*, Match1\_after\_injury\_GD, Match2\_after\_injury\_Opposition, Match1\_after\_injury\_Player\_rating, Match2\_after\_injury\_Result, Match2\_after\_injury\_GD, Match2\_after\_injury\_Player\_rating, Match3\_after\_injury\_Result, Match3\_after\_injury\_Opposition ... (+2 more)

#### player\_valuations.csv

Path: /mnt/data/player\_valuations.csv

Shape: 496606 rows x 5 columns

Features: player\_id, date, market\_value\_in\_eur, current\_club\_id, player\_club\_domestic\_competition\_id

#### competitions.csv

Path: /mnt/data/competitions.csv

Shape: 44 rows x 11 columns

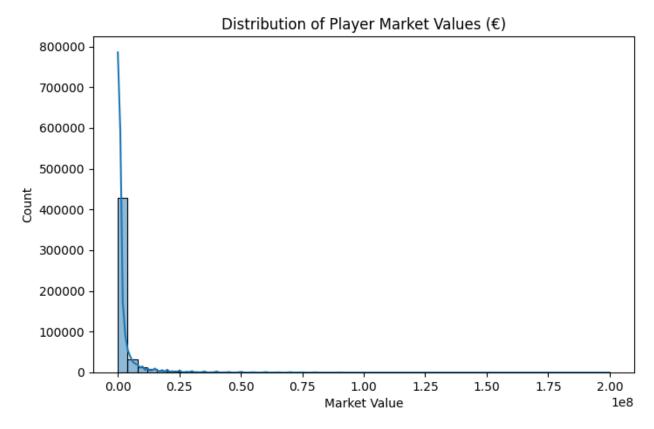
Features: competition\_id, competition\_code, name. sub\_type, type, country\_id, country\_name, domestic\_league\_code, confederation, url, is\_major\_national\_league

#### players.csv

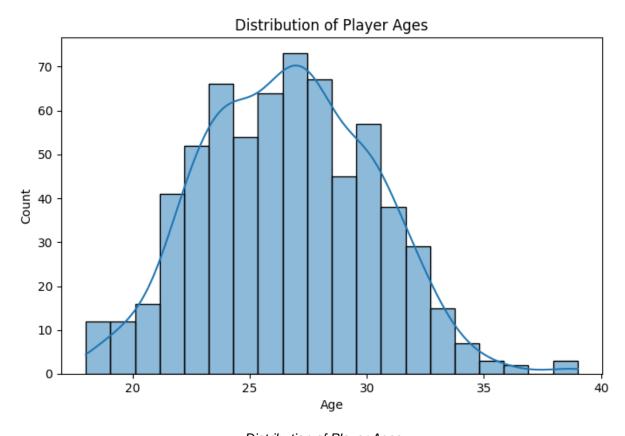
Path: /mnt/data/players.csv Shape: 32601 rows x 23 columns

Features: player\_id, first\_name, last\_name, name, last\_season, current\_club\_id, player\_code, country\_of\_birth, country\_of\_citizenship, date\_of\_birth, sub\_position, position, foot, height\_in\_cm, contract\_expiration\_date, agent\_name, image\_url, url, current\_club\_domestic\_competition\_id, current\_club\_name, market\_value\_in\_eur, highest\_market\_value\_in\_eur

## 4) Visualizations Generated



Distribution of Player Market Values (€)



Distribution of Player Ages



## 5) Notes on Preparation

- CSV files were obtained from Kaggle and StatsBomb open data repositories and combined locally for analysis.
- Player-related tables (e.g., players, player\_valuations, injuries/impact, competitions) provide demographics, market values, and contextual metadata used for distribution plots.

Sentiment Distribution (Training Tweets)

- Twitter datasets (training and validation) include tweet text and sentiment labels, enabling the computation of sentiment distributions.
- Plots included: (a) Player Market Values distribution, (b) Player Ages distribution, and (c) Sentiment label counts for training tweets.
- Standard cleaning steps typically include handling missing values, type casting (e.g., ensuring numeric market values), and de-duplicating records before visualization.