



# DATA SCIENCE IN FOOTBALL

Applications and Case Studies

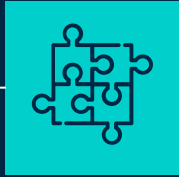
Tushar Joshi

# OVERVIEW

- Sports Analytics: history and background
- How data is being used in professional football
- Case studies



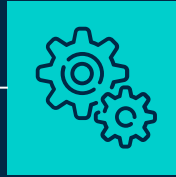
# THE MONEYBALL STORY



01

## Approach

How and why data-driven approach was adopted



02

## Outcome

Result of an innovative idea



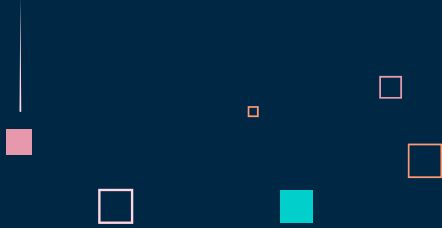
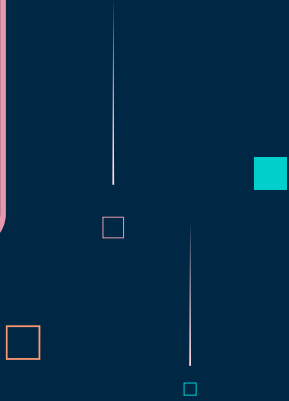
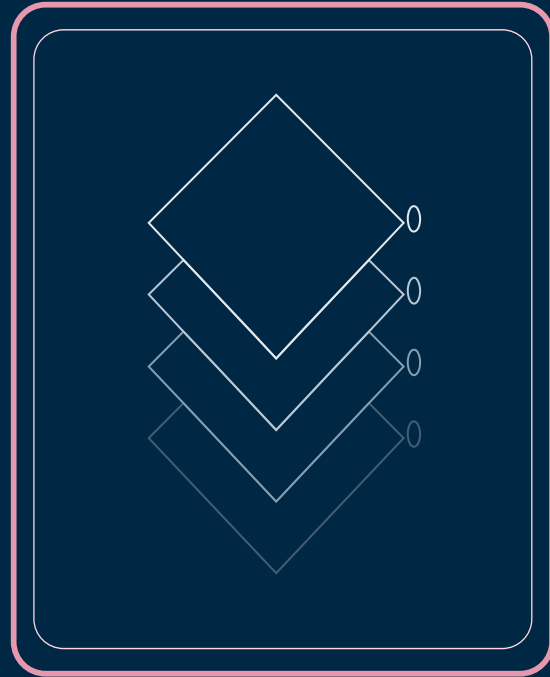
03

## Impact

How it inspired other teams and sports

# USE CASES

- Performance Analysis
- Tactical Analysis
- Player Scouting
- Recruitment
- Grassroots Development



# PERFORMANCE ANALYSIS

## TEAM ANALYSIS

Setting and monitoring goals and targets to achieve collectively

## PLAYER ANALYSIS

Monitor training sessions, track player development and use data-driven insights to improve performance



# MATCH PREPARATION

## PRE-MATCH ANALYSIS

Studying opponent's tactics, strengths, weaknesses



## TACTICAL INSIGHTS

Anticipating and reacting to in-game situations



## RECOVERY AND TRAINING

Preparation for the next match



## POST-MATCH ANALYSIS

Reflecting on what went well and what needs improvement

# CASE STUDIES

## LIVERPOOL FC

Research and analysis department

## FIFA TECHNICAL STUDY GROUP

Match analysis and in-depth statistics

## BRENTFORD FC

Statistics and probabilistic models

## FC BAYERN MUNICH

Global expansion through Big Data



# PLAYER SCOUTING AND RECRUITMENT

Compiling a shortlist of players depending on manager's requirement



Scouting players in-person (eye test)

Combining insights from scout's assessment and data analysis

Final shortlist and making offers



# TRANSFERS AND CONTRACT NEGOTIATIONS

- Players collaborating with analytics companies
- Kevin De Bruyne's Contract Negotiations at Manchester City
- Memphis Depay's transfer from Manchester United to Lyon



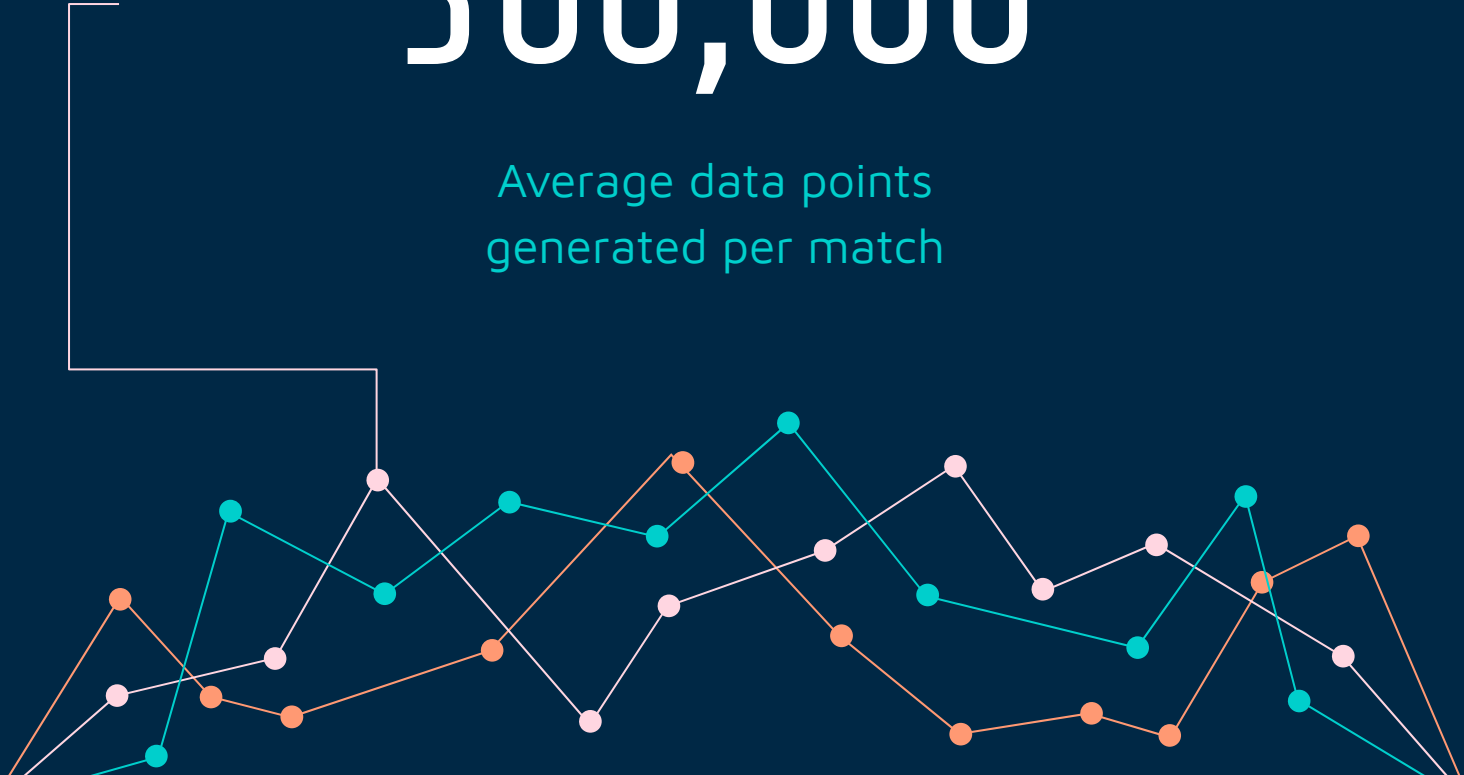
# GRASSROOTS DEVELOPMENT

- Player development pathways
- Creating a platform for young players
- Clubs reaping the rewards



# 300,000

Average data points  
generated per match





THANK YOU!

Questions?

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