

## Classifying Footballer's Key Attributes

### I. Background Information

FIFA 19 brings the most beautiful game of football to technology in the form of a video game. The dataset contains detailed attributes for every player registered in the latest edition of FIFA 19 database. The goal is to figure out the most important attributes to classify / analyze.

### II. The problem

1. Predicting player's market value; whether they are overvalued or not. Given this information we can also explore possible alternative players for a bargain.
2. Predict player potential. This is an important attribute because one can purchase players at low ratings but receive great value as they play for the club given their full potential. On the other hand we can set a potential threshold and create classification model that says whether their potential is greater than the threshold. We could set different thresholds based on positions.
3. Potentially predict player position based on their attributes to maximize their output on the field.

### III. Why Care?

The attributes presented in the dataset have a direct correlation with the actual player skills. Therefore, the ability to predict certain attributes such as their market value would allow managers to offer fair market price values for players for example. On the other hand, we could find similar players that produce similar outcomes as top players for a bargain. This area of "why care" will be extended as we explore the data more.

In addition, if the relationship between real footballers and respective FIFA19 counterparts is not accurate enough. Our data analysis will be vital for those who assemble teams and play fantasy football in FIFA19.

### IV. Data Acquisition

I will be using the complete FIFA19 dataset from Kaggle.

<https://www.kaggle.com/karangadiya/fifa19>

### V. Problem Solution Methodology

Possible models for this dataset can be either classification or some form of machine learning (polynomial regression).

### VI. Method of Presentation

Slides / Code