

# *UFC*

The key to become  
the ultimate fighter

IRON  
HACK

## 01 What is the UFC?

Short introduction about the UFC competition and its impact on the world

## 02 Fighters

Analysis of the most relevant attributes that describe a fighter

## 03 Fights

Analysis of the most important variables when it comes to winning a match

## 04 Predicting a fight?

Can machine learning predict the winner of a UFC combat?

## 05 Conclusion

Discovering the key attributes that make a fighter the ultimate champion



01

# What is the UFC?

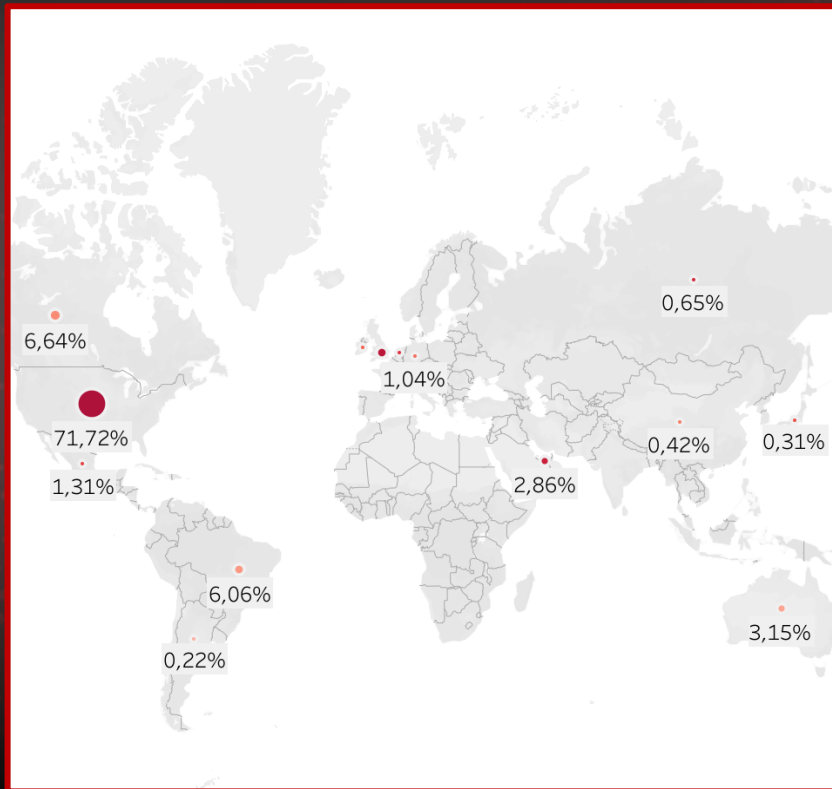




# 01 What is the *UFC*

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Where does it take place?:



Global fan base:

20  
20

330 million fans\*



28,9 M followers



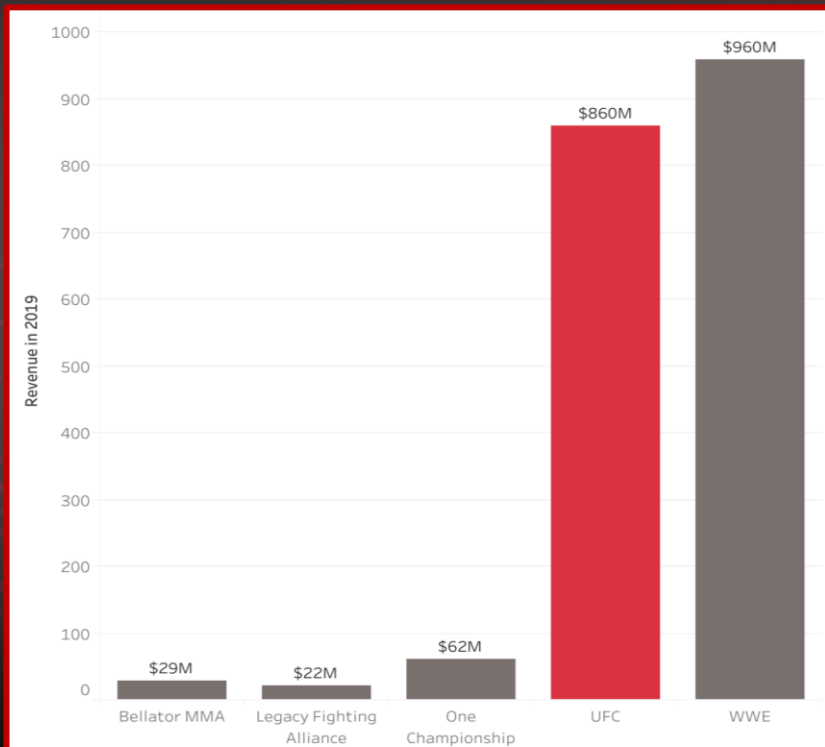
33,1 M followers

\*Estimation based in revenue growth

# 01 What is the UFC

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Most relevant Fight Companies in 2019:



Avg. UFC fighter salary in 2020: **\$ 147.965**

TOP 3:

1



Connor McGregor  
\$15 M

2



Alistair Overeem  
\$9.6 M

3



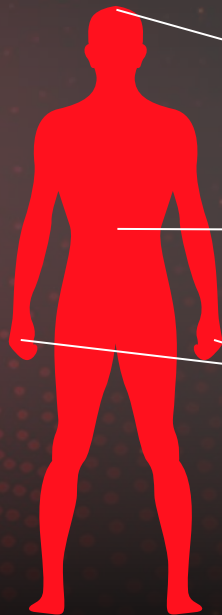
Khabib Nurmagomedov  
\$8.7 M

02

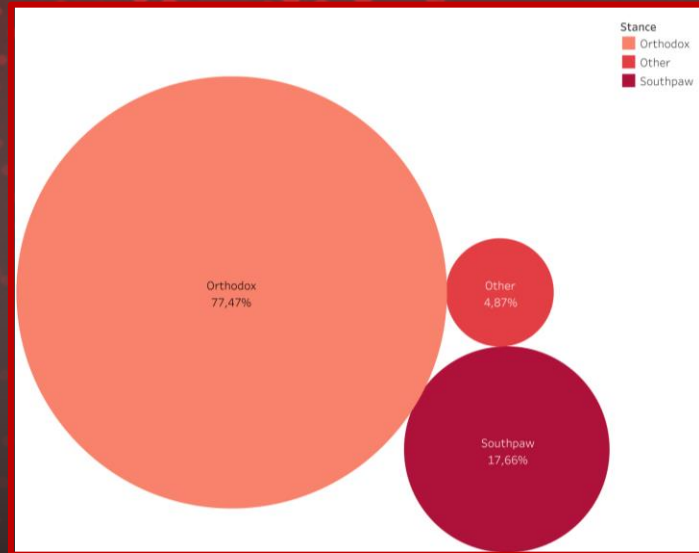
Fighters



# 02 Fighters



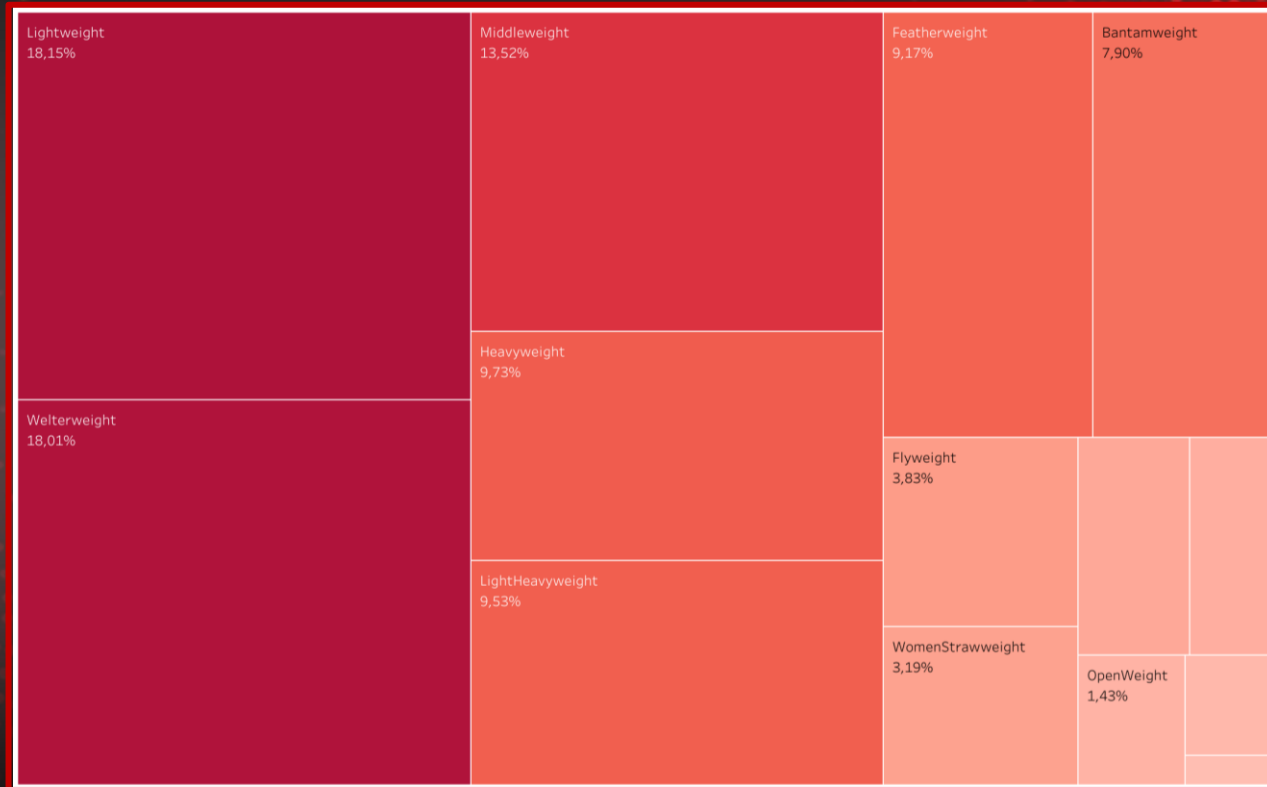
## Most common fighters' stance





# 02 Fighters

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Percentage of  
fighters per  
Weight Category



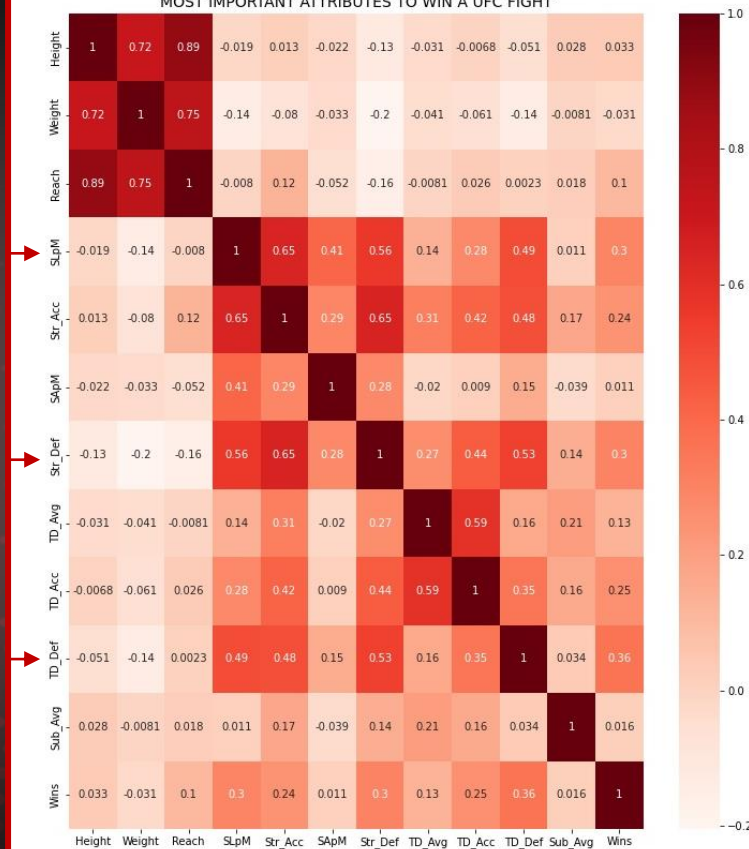
03

Fights



# 03 Fights

MOST IMPORTANT ATTRIBUTES TO WIN A UFC FIGHT



## Takedown defence

The percentage of takedowns that you defend is the principal key to win a UFC fight nowadays.



## Striking defence

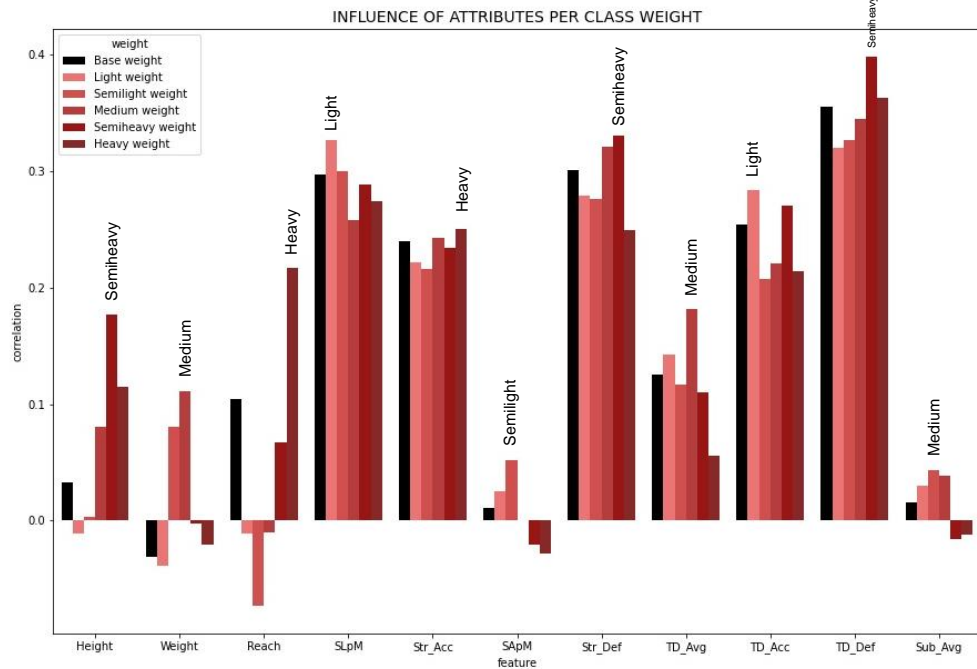
The more hits you can defend, the more likely you are to win a UFC fight.



## Significant landed punches

Not all is defending! If you are as precise as a sniper with your punches, Your chances of victory increase!

# 03 Fights



Light  
(105 -145)

SLpM and  
TD\_Acc

Semilight  
(145-155)

SAPM

Medium  
(155-170)

Weight and  
TD\_Avg

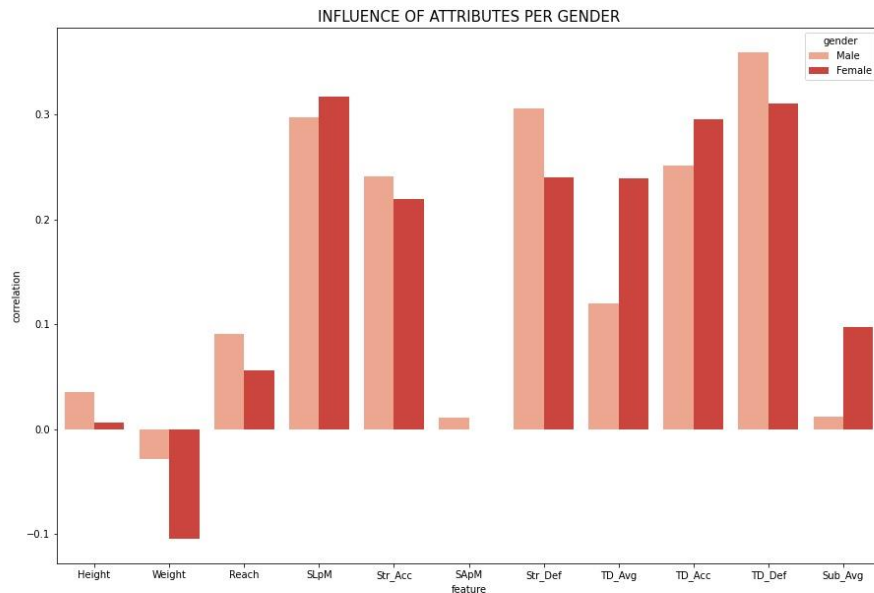
Semiheavy  
(170-205)

Height,  
Str\_Def and  
TD\_Def

Heavy  
(>205)

Reach,  
Str\_Acc

# 03 Fights



## MALE

- Height
- Reach
- Str\_Acc
- SApM
- Str\_Def
- TD\_Def

## FEMALE

- Weight
- SLpM
- TD\_Avg
- TD\_Acc
- Sub\_Avg



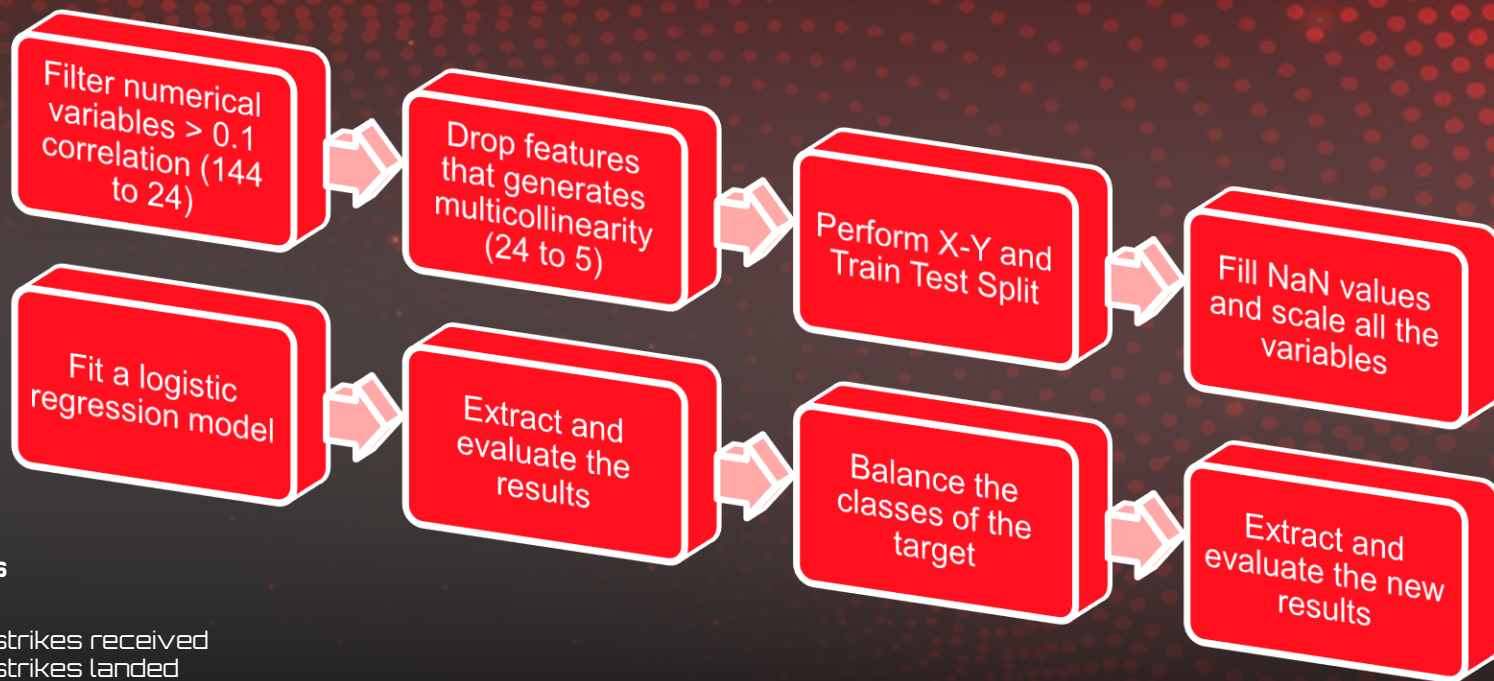


04

Predicting an  
UFC fight?



# 04 Predicting a UFC fight?



## Input variables

- Significant strikes received
- Significant strikes landed
- Ratio of losses
- Ratio of winnings by DS
- Age

# 04 Predicting a UFC fight?



## RESULTS NOT BALANCED DATA



## RESULTS BALANCED DATA





05

conclusions





# 05 Conclusions



1. TAKE DOWN DEFENSE



2. STRIKING DEFENSE



3. SIGNIFICANT LANDED PUNCHES PER MINUTE



4. WEIGHT CATEGORY CAN INFLUENCE THESE VARIABLES



5. GENDER MAY SLIGHTLY VARY THE RELEVANCE OF THESE ATTRIBUTES



6. We can not demonstrate that the next variables have not relation: Height vs Reach, TD\_Def vs wins and Sub\_Avg vs TD\_Acc

# 05 Conclusions



- NEXT STEPS:
1. Carry out a more in-depth study on the ufc and its industry : growth drivers, revenue rates, internationalization...
  2. To deepen the study of fighters' attributes by creating distributions by category and gender
  3. Analyze other variables that may influence the victory such as the nationality of the fighter, the stance or the place where the fight takes place
  4. Try to improve the model with other parameters and approaches. Try and test other models and compare the metrics.