

UFC Events (1993-2023)

Data Storytelling Project



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Introduction

This project is my first attempt at data storytelling / data analysis. As someone who is a big fan of mixed martial arts as a sport, I find it intriguing to examine the underlying data. For readers unfamiliar with the UFC and mixed martial arts, I have included an introduction.

The dataset contains information about events and individual bouts, since I do not have any scientific or business objectives, I have explored this dataset based on questions that popped up in my mind, and ones I thought would be interesting.

This is reflected in the questions I am answering and the nature of the facts I have produced in this report, some of which may already be well-known, some might be interesting, and some even absurd.

I will be following this up with a similar project on a different UFC dataset, and I openly welcome any suggestions, criticisms, and any feedback.



What is MMA ?



Mixed Martial Arts (MMA) is a full-contact combat sport that allows a wide variety of fighting techniques and skills from various martial arts and combat sports to be used in competition.

It typically combines techniques from disciplines such as boxing, kickboxing, Muay Thai, Brazilian Jiu-Jitsu, wrestling, judo, and other martial arts, both striking and grappling.

MMA fights take place inside a ring or a fenced enclosure called the cage for 3 or 5 rounds (for championships).

Each round is five minutes in duration, with one minute of rest in between.

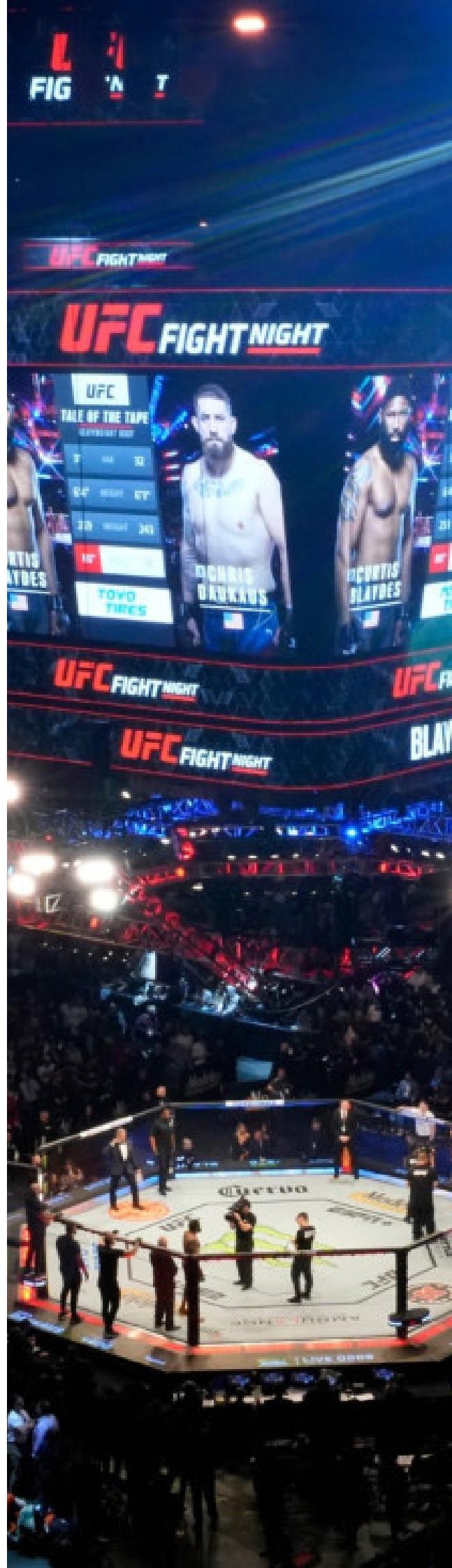
What is the UFC ?

Founded in 1993, the UFC (Ultimate Fighting Championship) is a leading global MMA organization, dominating PPV events and media content.

UFC hosts global events in the Octagon, featuring elite fighters, broadcasted on TV and digital platforms, with millions of viewers.

Weight classes in the ufc range from Strawweight (115 lbs) to Heavyweight (265 lbs) for men, and Strawweight (115 lbs) to Featherweight (145 lbs) for women, and fights contested when a fighter fails to make weight is considered as catch-weight.

In the UFC, main events and championship bouts are set for 5 rounds, while all other bouts are set for 3 rounds.



About the dataset

The dataset covers all bouts between and including **UFC 2** and **UFC 284**.

Source	https://www.kaggle.com/datasets/syedanwarafridi/ufc-events-data-till-2023
Creator	Syed Anwar
About	Contains details about all individual bouts conducted by the UFC between March 1993 and December 2023.
Features	Fighter 1 : Fighter 1 name Fighter 2 : Fighter 2 name Fighter_1_KD / Fighter_2_KD : Knockdowns Fighter_1_STR / Fighter_2_STR : Significant Strikes Landed Fighter_1_SUB / Fighter_2_SUB : Submission attempts Fighter_1_TD / Fighter_2_TD : Takedowns Method : Method of victory Round : Round of victory/finish Time : Duration of fight in minutes and seconds Winner : Name of winner Event Name : Title of event Date : Date of event Location : City, State and Country of event
Size	(7417 rows, 18 columns) / 542.95 kB
Date covered	1994-03-11 - 2023-12-02

Disclaimer

The facts in this project are directly based on my findings from the dataset. Some findings may be incorrect or out of date due to the limitations of the dataset,

Many details are skewed due to the fact of some fighters, weight classes, venues and bouts are more prevalent and actively promoted or contested than others.

Some images added here for representation may be graphic.

What is the total number of bouts covered ?

The dataset covers **7416** bouts.

What is the average duration of a fight ?

On an average, a fight has lasted **3min : 47s**.

What round did most fights end in ?

Most fights ended in the *third round*, followed by *finishes in the first round*.

What is the most popular method of finish ?

Most fights ended by *Unanimous Decision*.

For all events
(1993-2023)



The venues



LAS VEGAS, NEVADA

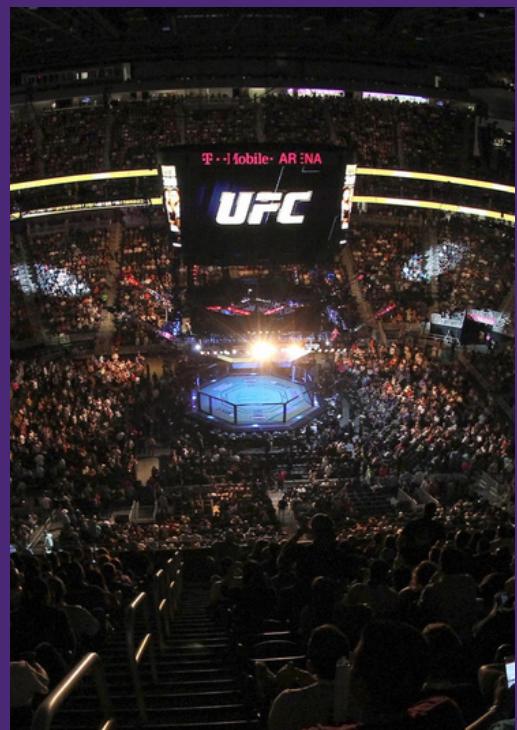
Including the T-Mobile arena, this venue has seen over **2411** bouts.

LONDON, UNITED KINGOM

Landing across the channel in UFC 38, United Kingdom has hosted **170** bouts.

ABU DHABI, UAE

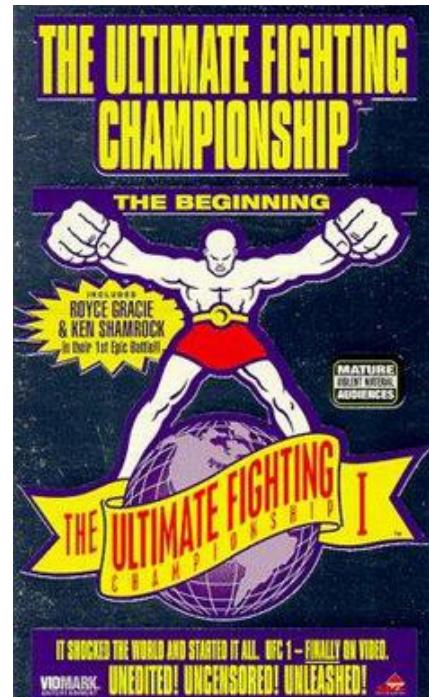
The place that gave the UFC a lifeline during the 2020 pandemic, has seen **196** bouts.



The 'firsts'

Where was the first UFC fight held ?

The first UFC event ever was in Denver, Colorado.



Which male fighter won the first knockout in UFC ?

Gerard Gordeau won the first knockout in UFC in the first round.



Which male fighter won the first submission ?



Patrick Smith won the first submission in UFC, also in the first round.

Who was the first female UFC fighter ?

Ronda Rousey fought Liz Carmouche at UFC 157 and secured a win by armbar, the first submission win in the first round in the ufc.



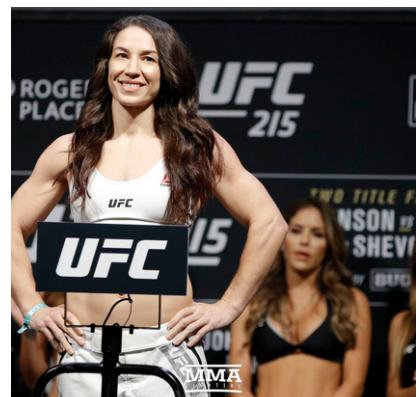
Which female fighter won the first knockout in UFC ?

Cat Zingano won the first round knockout in UFC.



Which female fighter won the first first round knockout?

Sara McMann won the first first round knockout in UFC.



Across all fights



2609
bouts ended via
unanimous decision.



704
bouts ended via
split decision.



1468
bouts ended via
submission

Submissions

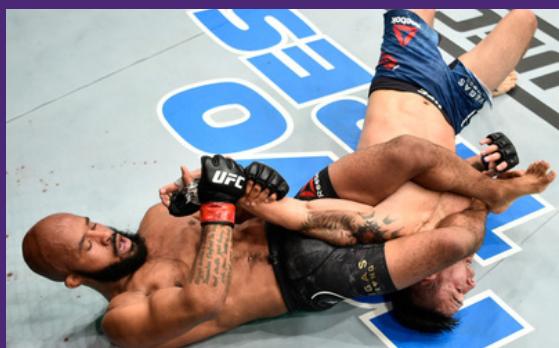


563

bouts ended by
rear naked choke.

262

bouts ended by
guillotine choke.



191

bouts ended by a form of
armbar.

104

bouts ended by
arm triangle.



92

bouts ended by triangle choke.



41

bouts ended by kimura.



Von Flue Choke (Shoulder Choke)

were the *rarest* submissions, happening **only once** each.

Toe Hold

Knockouts



1726
bouts ended by
punch / punches.



181
bouts ended by
a kick knockout.

160

bouts ended by a
elbow strike (or
strikes) knockout.



7
bouts ended by a
spinning back elbow strike
knockout.



34

bouts ended by
flying knee knockout.

10

bouts ended by
a spinning back kick and a
spinning back fist each.



14

bouts ended by a
slam knockout.

149

bouts ended with a KO/TKO
by a combination of strikes.

Decisions



2609
bouts ended by
unanimous decision.



704
bouts ended by
a **split** decision.



91
bouts ended by a
majority decision.

56
outcomes in
all were
overturned.

25
bouts were rendered CNC
(Could not continue).

Across all fighters

Men's weight
classes



Jim Miller
has the ***most wins*** at **26-16**.

Derrick Lewis
has the ***most knockouts*** with **14**
in the UFC.



Charles Oliveira
has the ***most submissions***
with **16** in the UFC.



Neil Magny
has the ***most decision wins***
at **14** in the UFC.



Gleison Tibau
has the ***most split-decision wins*** at 7 in the UFC.

Demian Maia
has the ***most rear naked chokes*** with 8 in the UFC.



Demeterious Johnson
has the ***most armbars*** with 4 in the UFC.



Vitor Belfort
has the ***most first round knockouts*** in the UFC.

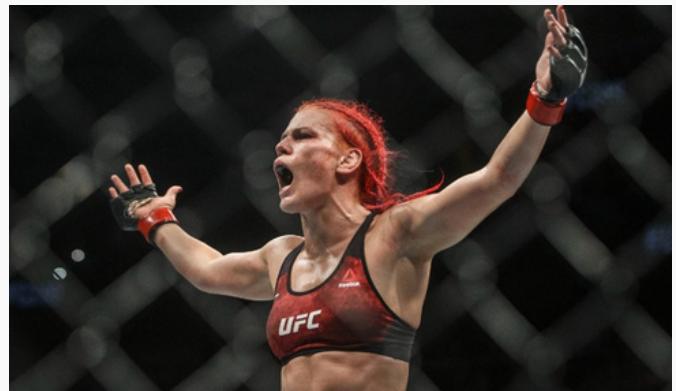


Jessica Andrade
has the ***most wins***
in the UFC.

Amanda Nunes
had the ***most knockouts as well as the most first round knockouts***
in the UFC.



Gillian Robertson
has the most **submissions**
as well as the most **rear naked chokes**
in the UFC.



Katlyn Chookagian
has the ***most decision wins***
in the UFC.



Mackenzie Dern
has the ***most first round submissions*** in the UFC.

The unfortunate losses



Clay Guida

has lost the most by submission.

Alistair Overeem

has lost the most by knockout
in the UFC.



Jeremy Stephens

has lost the most by
decision in the UFC.

Across all weight classes

Top 5 of Knockouts



Welterweight : **402**

Middleweight : **375**

Lightweight : **371**

Heavyweight : **362**

Light Heavyweight : **290**

Top 5 of Submissions



Lightweight : **288**

Welterweight : **239**

Middleweight : **216**

Bantamweight : **129**

Featherweight : **118**

First Round Knockouts



Heavyweight : 68

LHeavyweight : 55

Middleweight : 111

Welterweight : 119

Lightweight : 68

Featherweight : 102

Bantamweight : 86

Flyweight : 40

Women's Featherweight : 3

Women's Bantamweight : 13

Women's Flyweight : 24

Women's Strawweight : 30

Top 3 methods of victory

Lightweight

Unanimous Decision: **464**

KO/TKO Punch: **134**

SUB Rear Naked Choke: **134**

Bantamweight

Unanimous Decision: **230**

Split Decision: **75**

KO/TKO Punch: **67**

Welterweight

Unanimous Decision: **451**

KO/TKO Punch: **137**

Split Decision: **123**

Middleweight

Unanimous Decision: **297**

KO/TKO Punches: **147**

KO/TKO Punch: **103**

Light Heavyweight

Unanimous Decision: **189**

KO/TKO Punches : **109**

KO/TKO Punch: **104**

Featherweight

Unanimous Decision: **307**

KO/TKO Punch: **81**

Split Decision: **74**

Heavyweight

KO/TKO Punches : **168**

Unanimous Decision: **163**

KO/TKO Punch: **124**

Flyweight

Unanimous Decision: **129**

Split Decision: **40**

SUB Rear Naked Choke : **32**

Women's Flyweight

Unanimous Decision: **98**

Split Decision : **29**

SUB Rear Naked Choke : **19**

Women's Bantamweight

Unanimous Decision: **89**

Split Decision: **25**

KO/TKO Punches: **17**

Women's Strawweight

Unanimous Decision: **144**

Split Decision : **38**

SUB Rear Naked Choke : **28**

Women's Featherweight

Unanimous Decision: **12**

Split Decision: **4**

SUB Rear Naked Choke : **3**

In the **men's division**, the **Lightweight** division had the most bouts (1288), followed by the **Welterweight** division (1247) and the **Middleweight** division (989).

In the **women's division**, the **Strawweight** division had the most bouts (285), followed by the **Flyweight** division (212) and the **Bantamweight** division (194).

BOUTS RENDERED CNC

Lightweight: **7**

Bantamweight : **5**

Light Heavyweight : **3**

Middleweight : **3**

Featherweight : **3**

Heavyweight: **2**

Welterweight : **2**

OVERTURNED BOUTS

Welterweight: **9**

Light Heavyweight: **9**

Bantamweight : **8**

Heavyweight : **8**

Lightweight : **6**

Middleweight : **6**

Featherweight : **5**

Flyweight : **2**

Women's Bantamweight : **2**

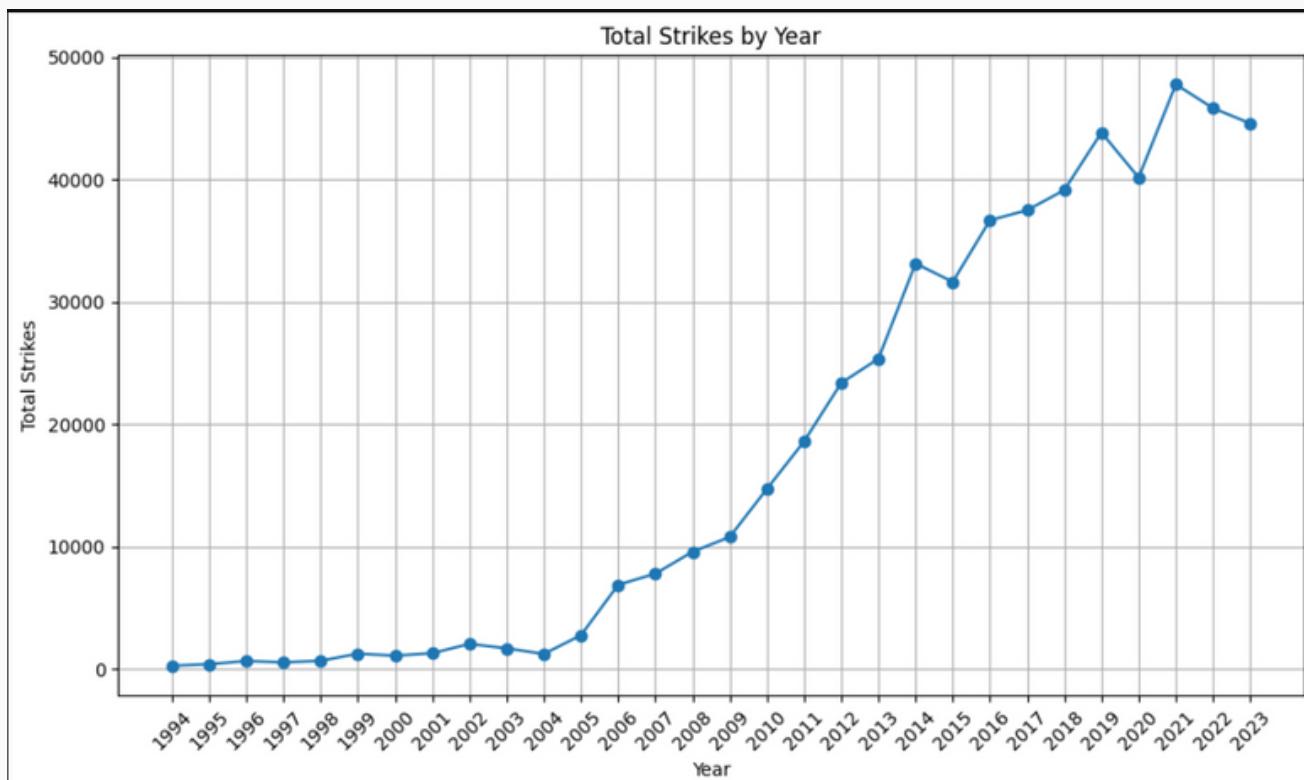
The bantamweight division has had the most bouts overturned or rendered CNC, followed by the lightweight division.

Over the years

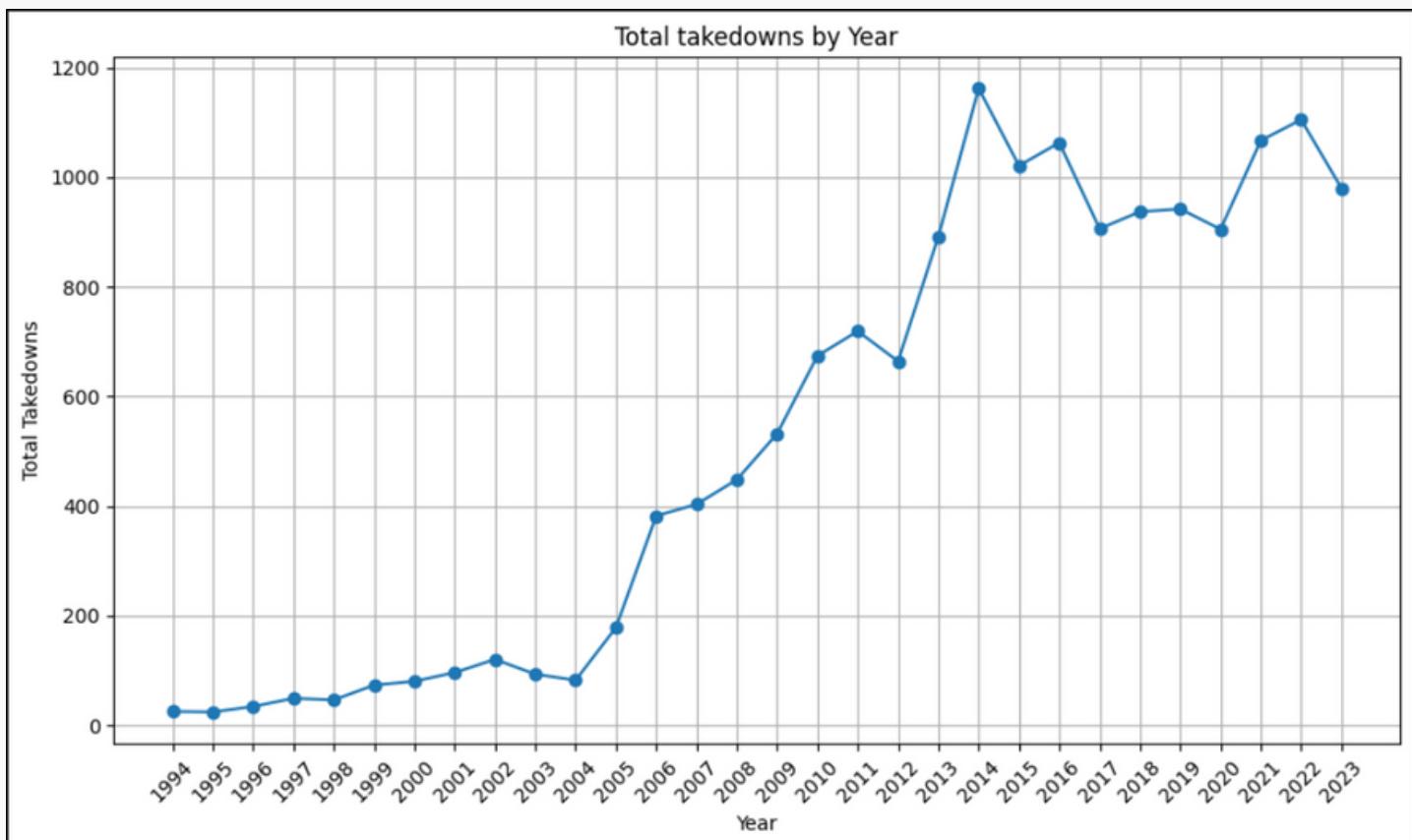
Year	Knockouts	Submissions	Decisions
1994	10	19	NA
1995	11	18	3
1996	23	9	4
1997	12	18	8
1998	7	7	7
1999	26	7	11
2000	14	11	17
2001	17	9	12
2002	29	8	15
2003	18	8	14
2004	18	11	10
2005	39	21	19
2006	59	47	52
2007	53	54	62

2008	85	51	64
2009	75	46	92
2010	69	59	124
2011	95	55	147
2012	105	70	158
2013	130	67	179
2014	152	95	247
2015	155	88	221
2016	153	89	248
2017	146	80	224
2018	151	90	229
2019	153	80	277
2020	139	82	226
2021	171	73	256
2022	171	98	239
2023*	-	-	-

Significant strikes over the years



Takedown attempts over the years



Submission attempts over the years



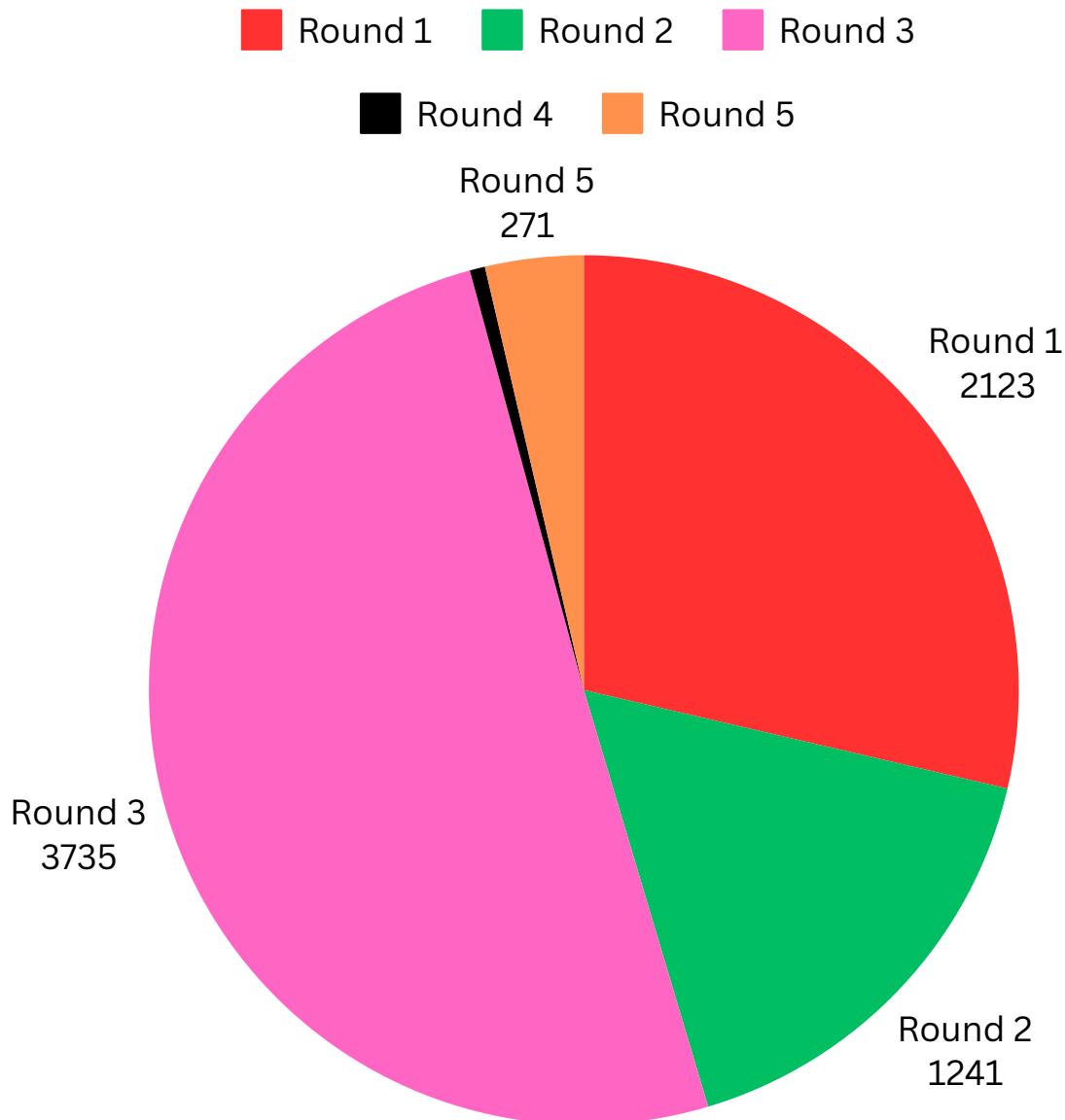
Total number of fights over all weight classes

Distribution of Weight Classes

- Lightweight
- Welterweight
- Middleweight
- Featherweight
- Heavyweight
- Light Heavyweight
- Bantamweight
- Flyweight
- Women's Strawweight
- Women's Flyweight
- Women's Bantamweight
- Open Weight
- Catch Weight
- Women's Featherweight
- Super Heavyweight

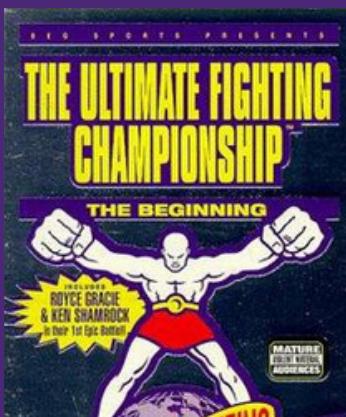


What round did fights end in ?



This would reflect the fact that only main event or championship fights are scheduled for five rounds thus the majority of events are of three rounds, and the most popular form of finish is decision (at the end of bouts).

ACROSS ALL EVENTS



UFC 2 had the most submissions.



UFC 199 had the most knockouts.



UFC Fight Night: Nelson vs. Story had the most decision wins.

UFC 222 had the most split decision wins.



The chances against an opponent

85.02%

times having landed more significant strikes landed led to a KO/TKO victory.



38.92%

times having landed more significant strikes landed led to a submission victory.



54.58%

times having made more takedown attempts led to a **decision victory**.



19.24%

times having made more takedown attempts led to a **KO/TKO victory**.



13.83%

times having made more submission attempts led to a KO/TKO victory.



87.04%

times having made more submission attempts led to a submission victory.



41.96%

times having made more submission attempts led to a decision victory.

Fighter names starting with ‘J’ have had the most wins as well as the most losses.

Most submission wins have been observed to happen in December.

Most knockouts have been observed to happen in July.

All CNC outcomes have occurred in the first or second round only.

Selected at random, a fight has the highest probability of being in the ‘Lightweight’ division and going to a decision.

Implementation

- This data analysis project was done with Python using the Pandas library.
- The code can be found in the Jupyter Notebook in [this repository](#).

References

- All images belong to the respective owners.
- I would also like to appreciate @THE_ART_OF_MMA for the fantastic art piece I have used for the cover.
- The links to the images can be found [here](#)

Thank You !

If you found this interesting, check out my other work or find me on :

