

Predicting UFC Fight Results

2023-12-11

```
##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##   filter, lag

## The following objects are masked from 'package:base':
##
##   intersect, setdiff, setequal, union

##
## Attaching package: 'lubridate'

## The following objects are masked from 'package:base':
##
##   date, intersect, setdiff, union

## randomForest 4.7-1.1

## Type rfNews() to see new features/changes/bug fixes.

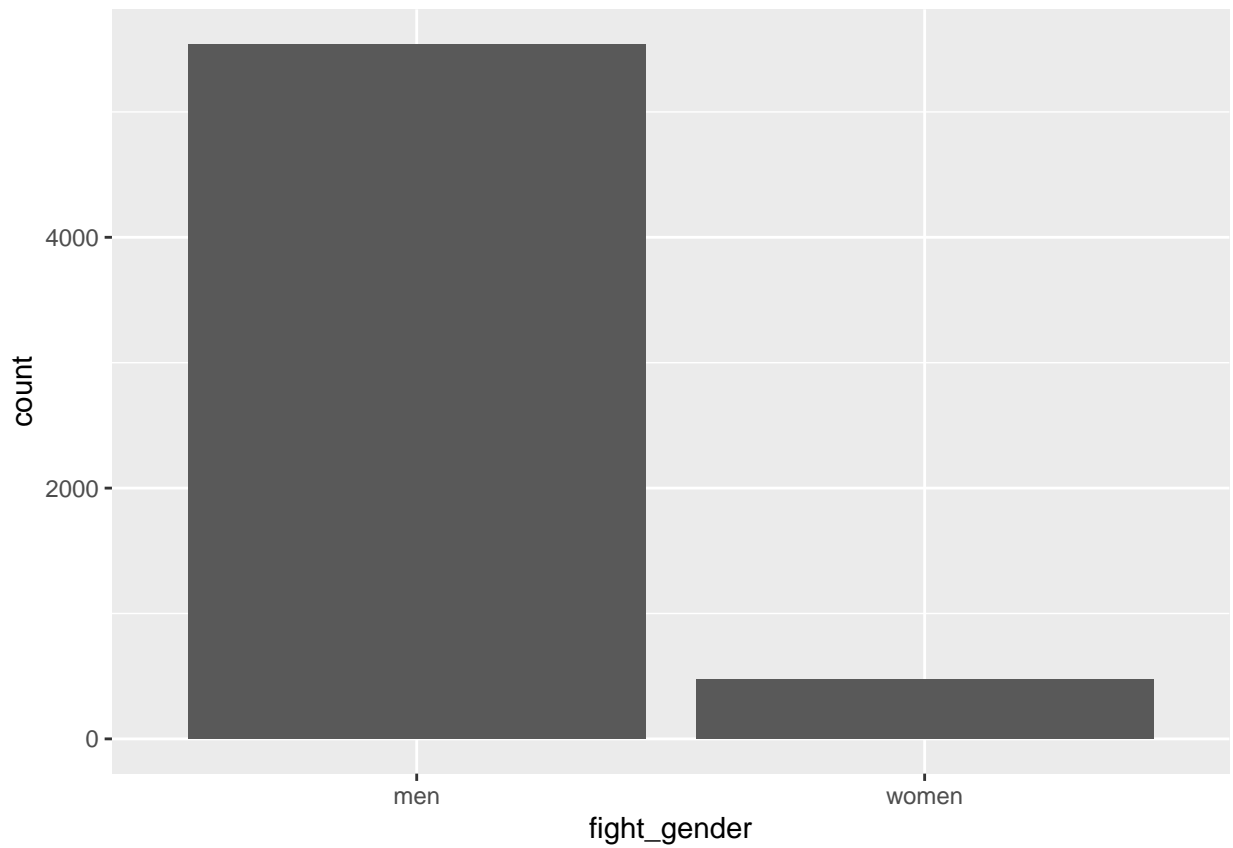
##
## Attaching package: 'randomForest'

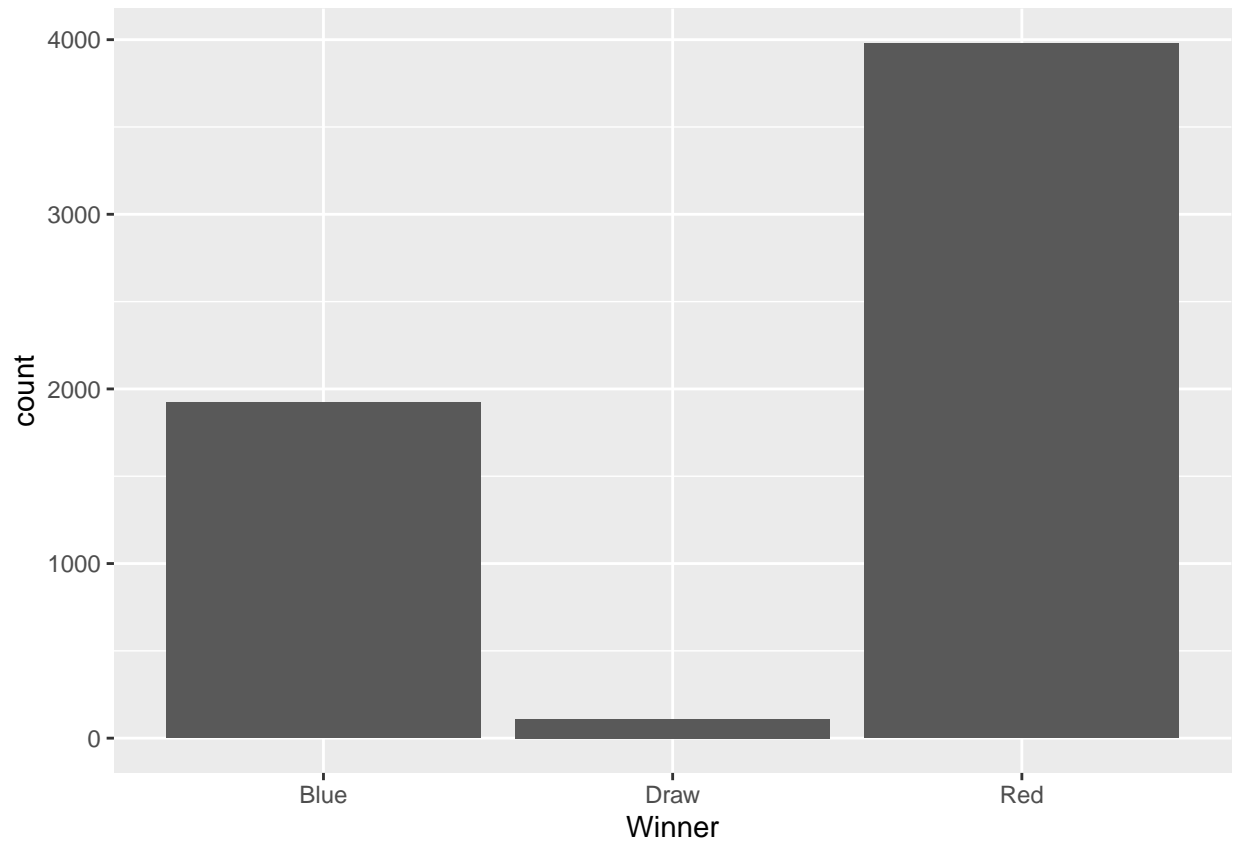
## The following object is masked from 'package:dplyr':
##
##   combine

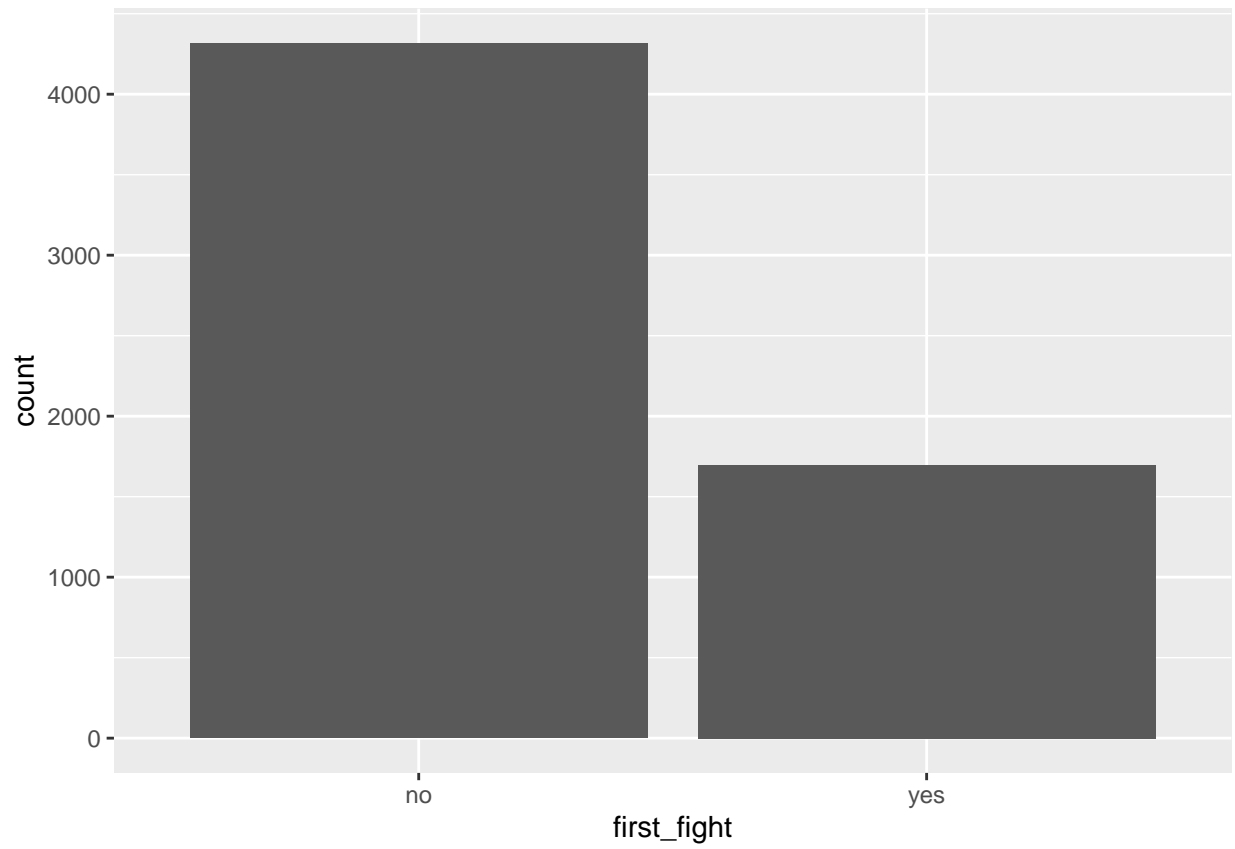
## The following object is masked from 'package:ggplot2':
##
##   margin

## Rows: 6012 Columns: 144
## -- Column specification -----
## Delimiter: ","
## chr   (9): R_fighter, B_fighter, Referee, date, location, Winner, weight_cla...
## dbl  (134): B_avg_KD, B_avg_opp_KD, B_avg_SIG_STR_pct, B_avg_opp_SIG_STR_pct,...
## lgl   (1): title_bout
##
## i Use 'spec()' to retrieve the full column specification for this data.
## i Specify the column types or set 'show_col_types = FALSE' to quiet this message.
```

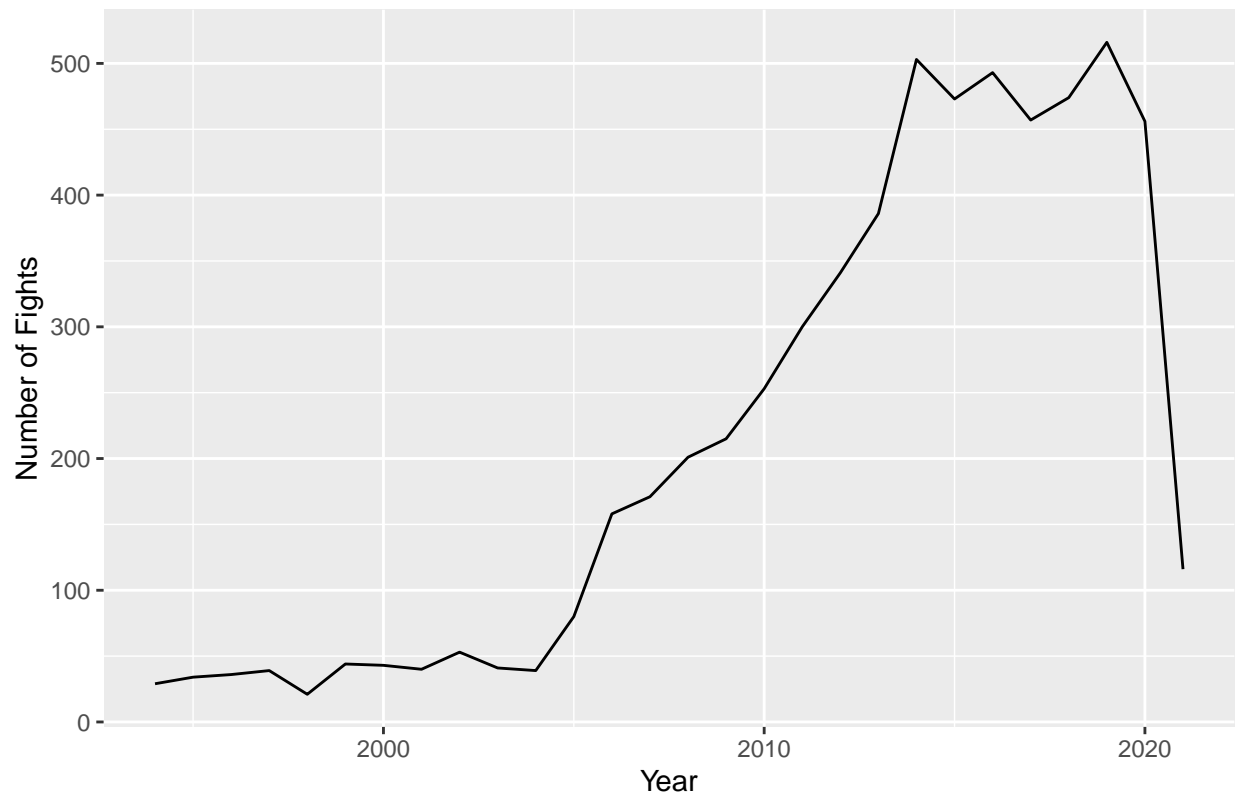
```
## # A tibble: 14 x 2
##   weight_class count
##   <chr>         <int>
## 1 Bantamweight    475
## 2 CatchWeight     54
## 3 Featherweight   551
## 4 Flyweight       230
## 5 Heavyweight     585
## 6 LightHeavyweight 573
## 7 Lightweight    1091
## 8 Middleweight    813
## 9 OpenWeight       86
## 10 Welterweight   1083
## 11 WomenBantamweight 151
## 12 WomenFeatherweight 16
## 13 WomenFlyweight  112
## 14 WomenStrawweight 192
```





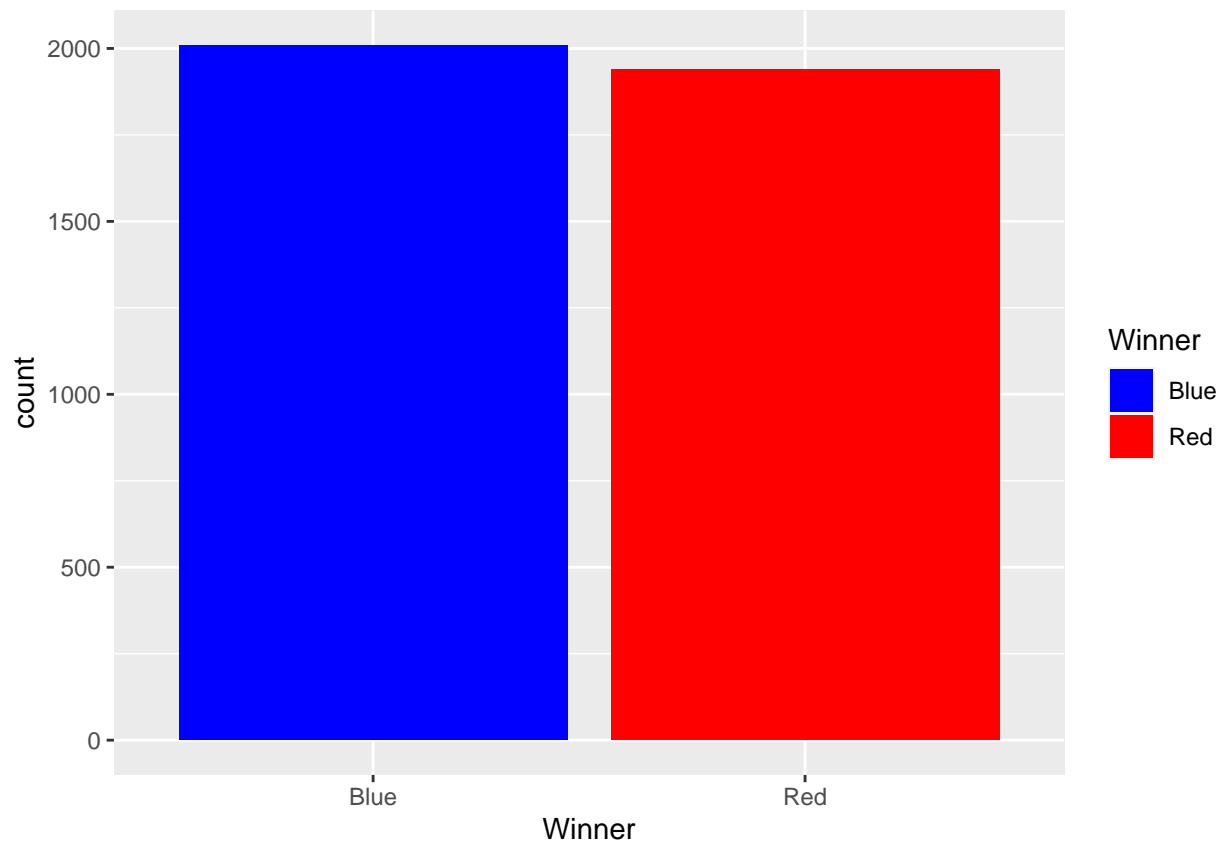


Trend of Number of Fights in the UFC



```
## [1] 3948
```

```
#randomizing blue and red
```



'summarise()' has grouped output by 'new_class'. You can override using the
'.groups' argument.

Table 1: Frequency of Weight Class Fights

new_class	weight_class	weight	count
Class 1	Flyweight	125	175
Class 1	Bantamweight	135	339
Class 1	Featherweight	145	408
Class 2	Lightweight	155	797
Class 2	Welterweight	170	797
Class 3	Middleweight	185	590
Class 3	LightHeavyweight	205	424
Class 4	Heavyweight	265	389
Class 4	OpenWeight	300	29

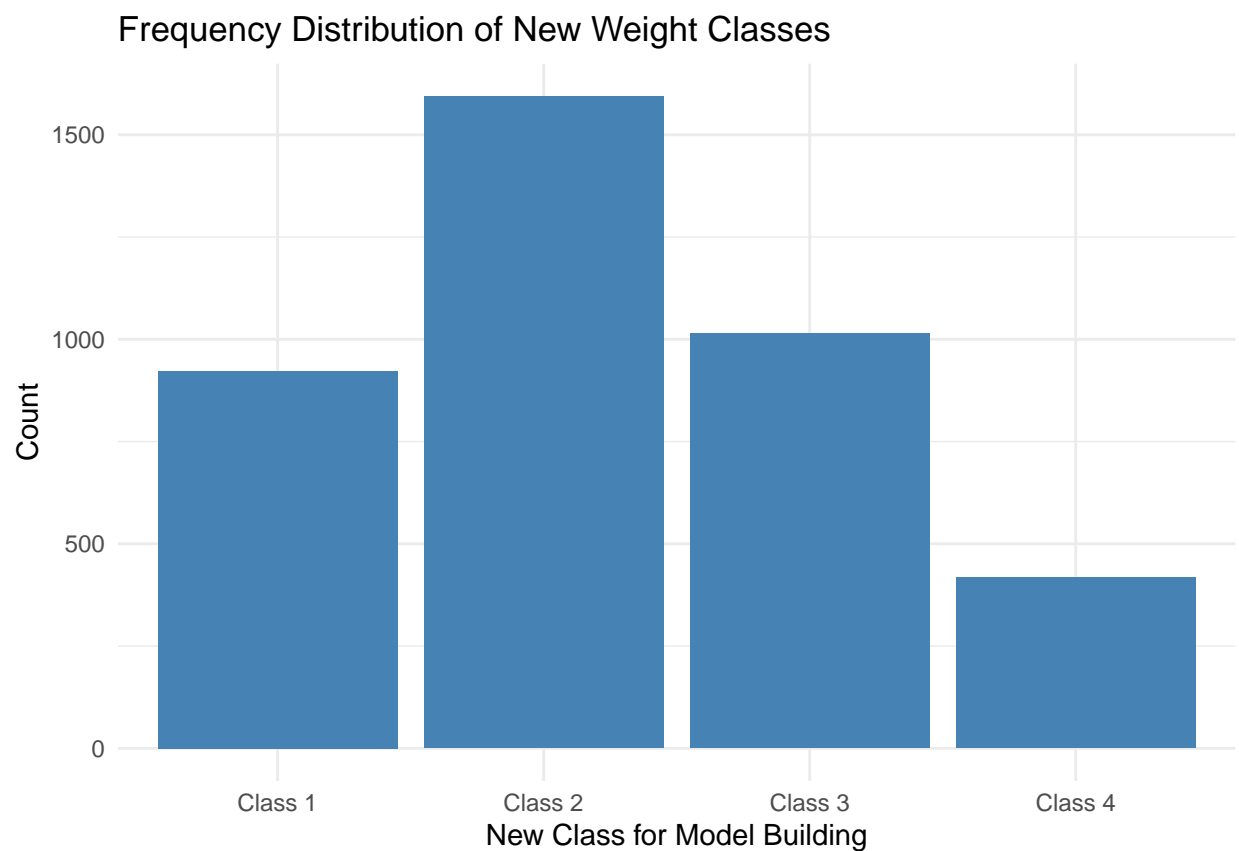


Table 2: Avg Attempt of Different Style Attacks

new_class	Rmean_head	Rmean_body	Rmean_leg	Rmean_clinch	Rmean_ground	Rmean_ctrltime
Class 1	72.1	11.8	7.7	7.5	8.0	141.4
Class 2	63.5	10.3	7.0	8.0	8.6	153.5
Class 3	52.3	8.1	6.1	8.2	8.8	139.5
Class 4	46.2	6.6	5.0	7.3	8.3	97.6

Random Forest Model Creation