

**SEPTEMBER 2024**



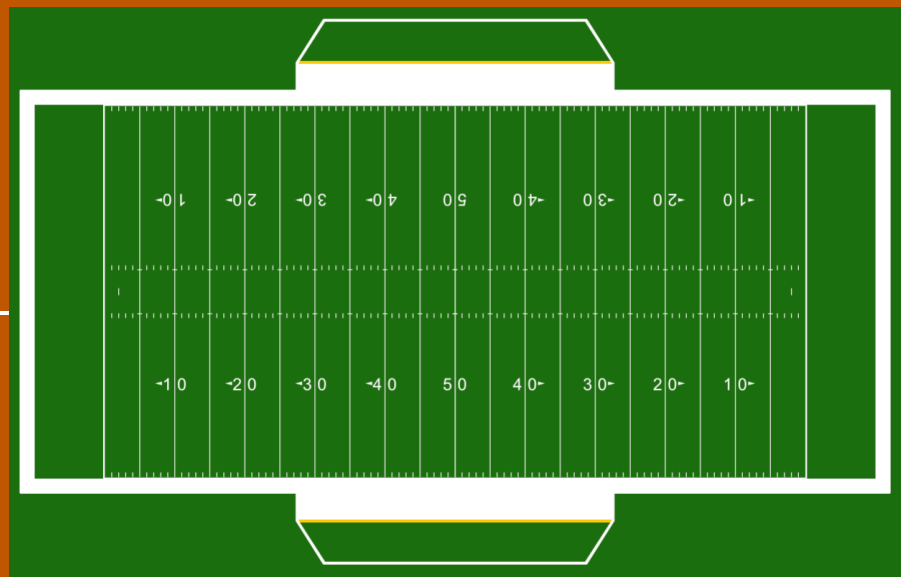
# **SPORTYR**

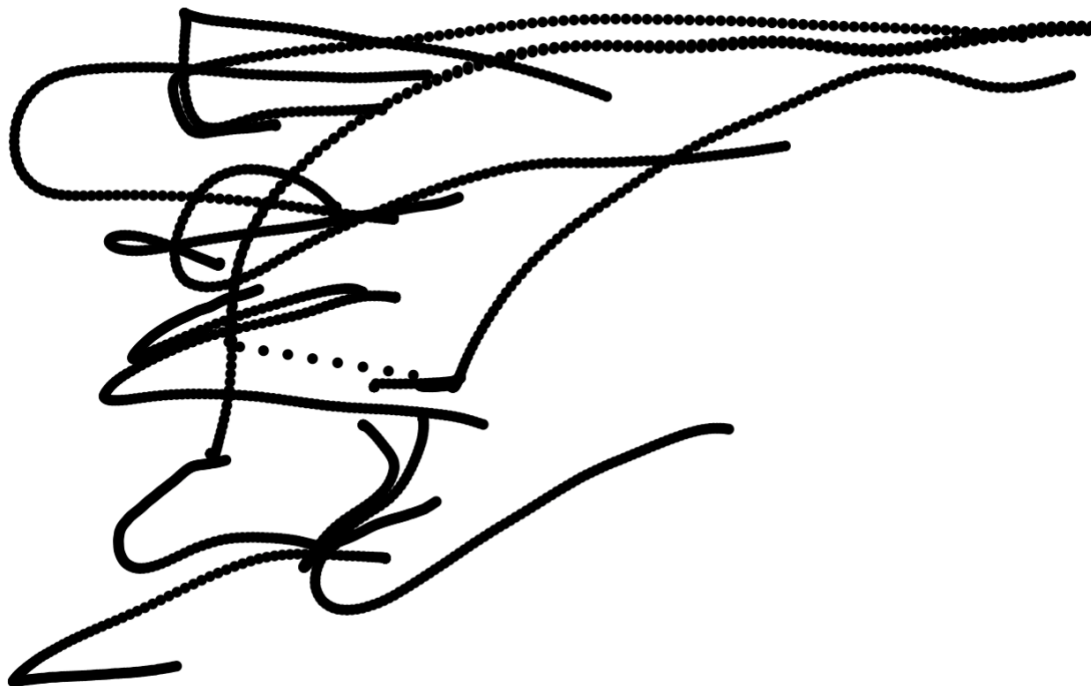
## **AN R PACKAGE**

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**LUCAS KIRK**

The University of Texas at Austin







```
install.packages("sportyR")  
library(sportyR)
```

Initial Release: April 2021

## The Creator



Ross Drucker

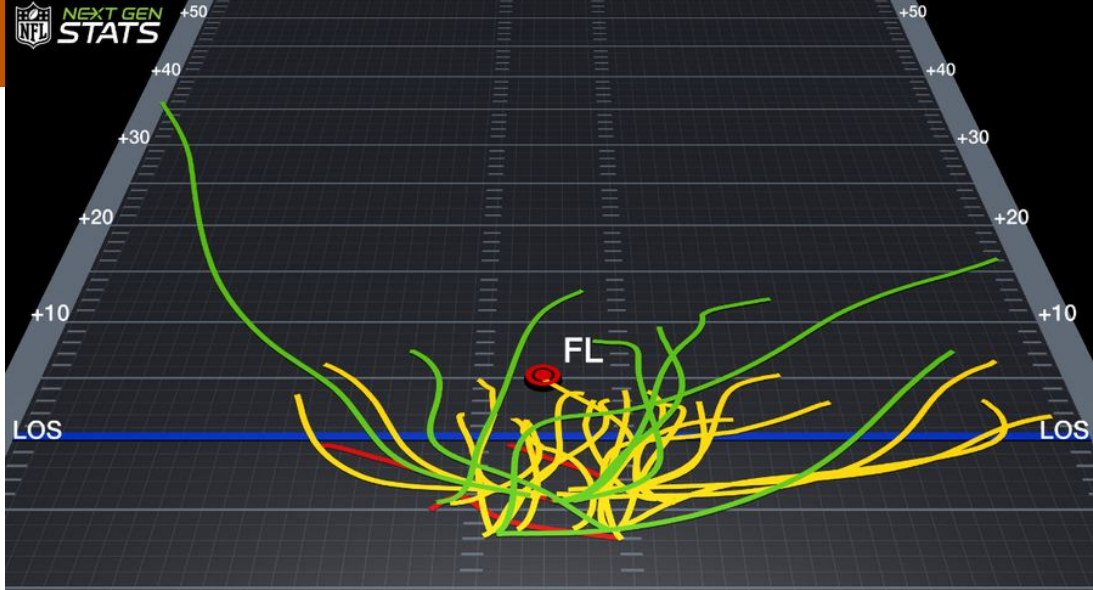


University of Illinois at  
Urbana-Champaign



powered by 

| RK | PLAYER          | TEAM | POS | SPEED (MPH) |
|----|-----------------|------|-----|-------------|
| 1  | DK Metcalf      | SEA  | WR  | 22.23       |
| 2  | Chase Brown     | CIN  | RB  | 22.05       |
| 3  | Tyreek Hill     | MIA  | WR  | 22.01       |
| 4  | Devon Achane    | MIA  | RB  | 21.93       |
| 5  | Kavontae Turpin | DAL  | WR  | 21.91       |
| 6  | Devon Achane    | MIA  | RB  | 21.76       |
| 7  | Derrick Henry   | TEN  | RB  | 21.68       |



TACKLED FOR LOSS

0-5 YDS GAINED

5+ YDS GAINED/TD

TOUCHDOWN

LOS LINE OF SCRIMMAGE

FUMBLE LOST

## CARRY CHART



#8 / RB

JOSH JACOBS / 2024 VS IND

CARRIES

32

YARDS

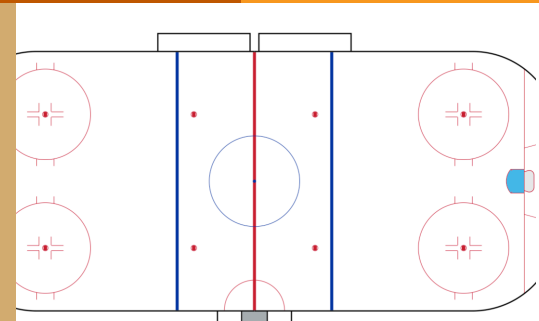
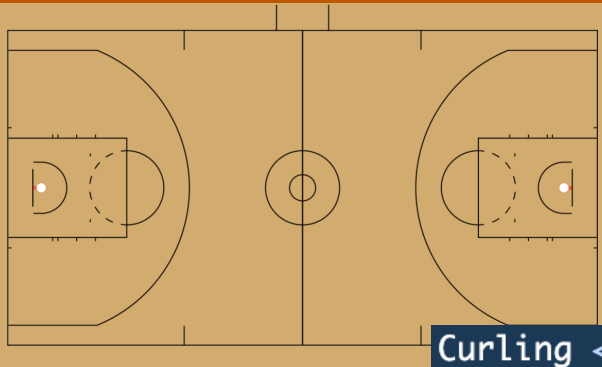
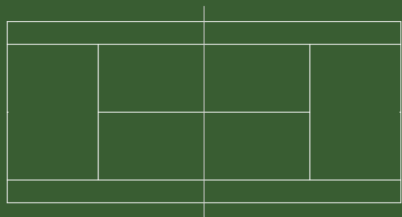
151

TD

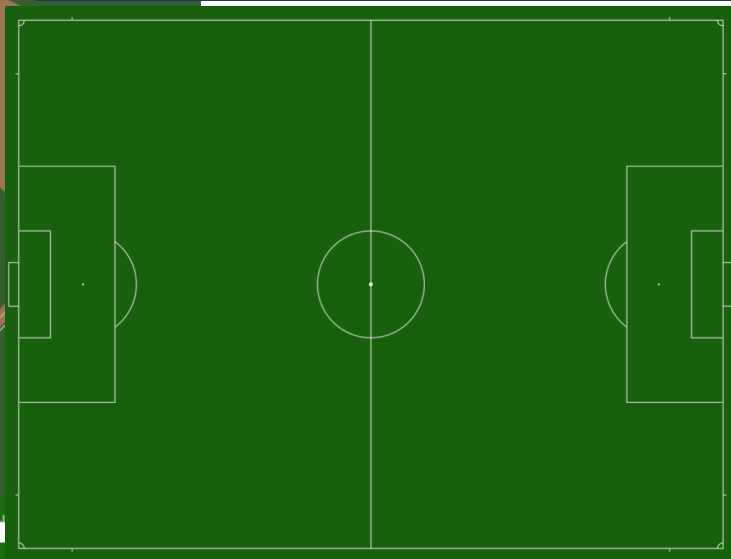
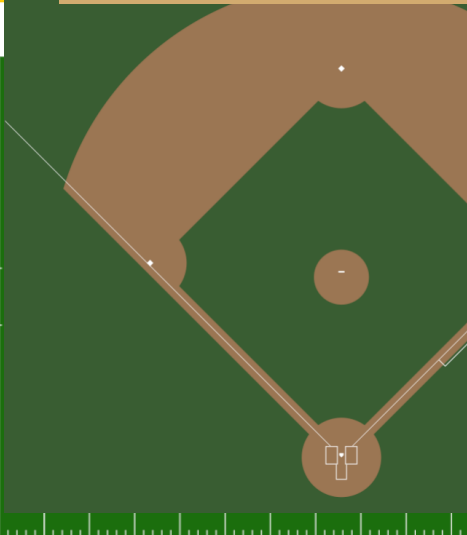
0

RYOE

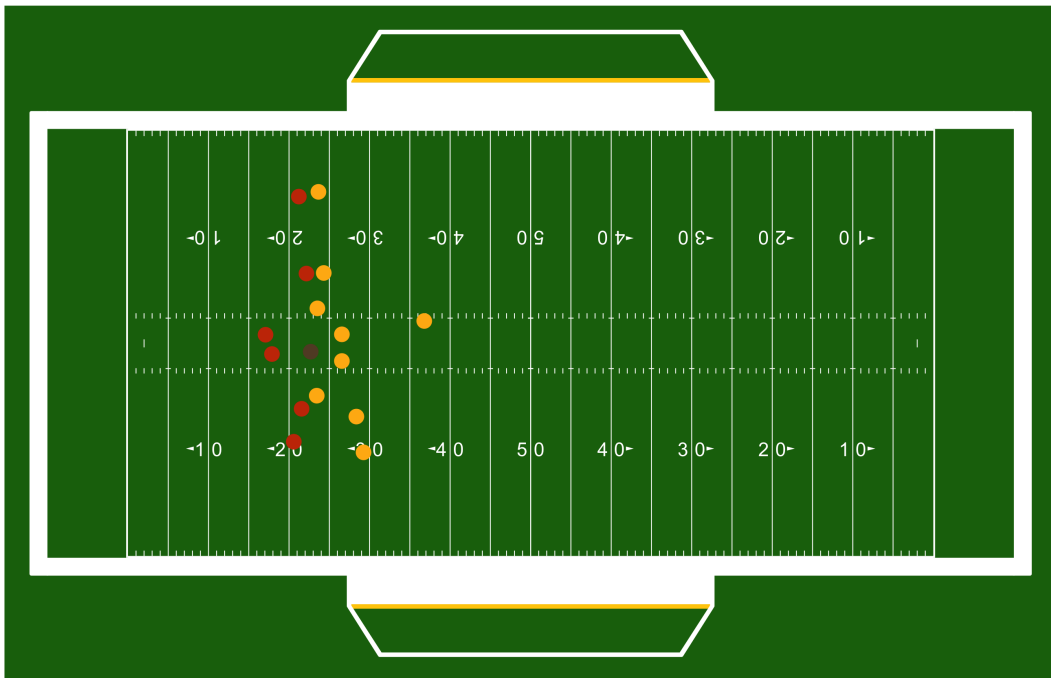
+24

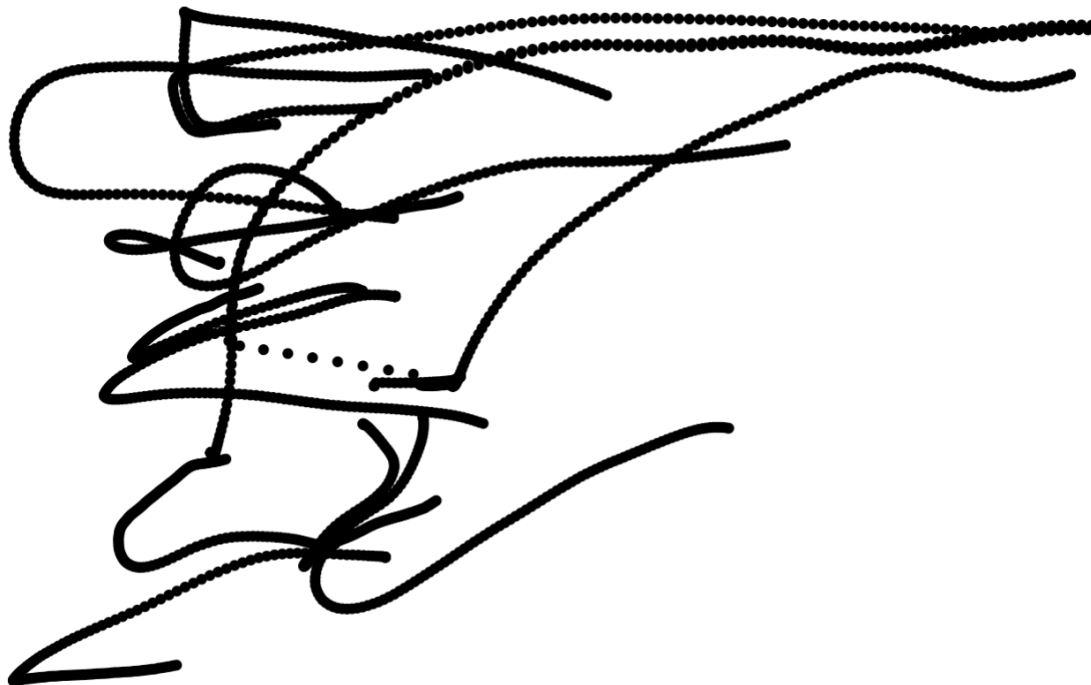


```
Curling <- geom_curling(league = "WCF")
```



## Putting it all together

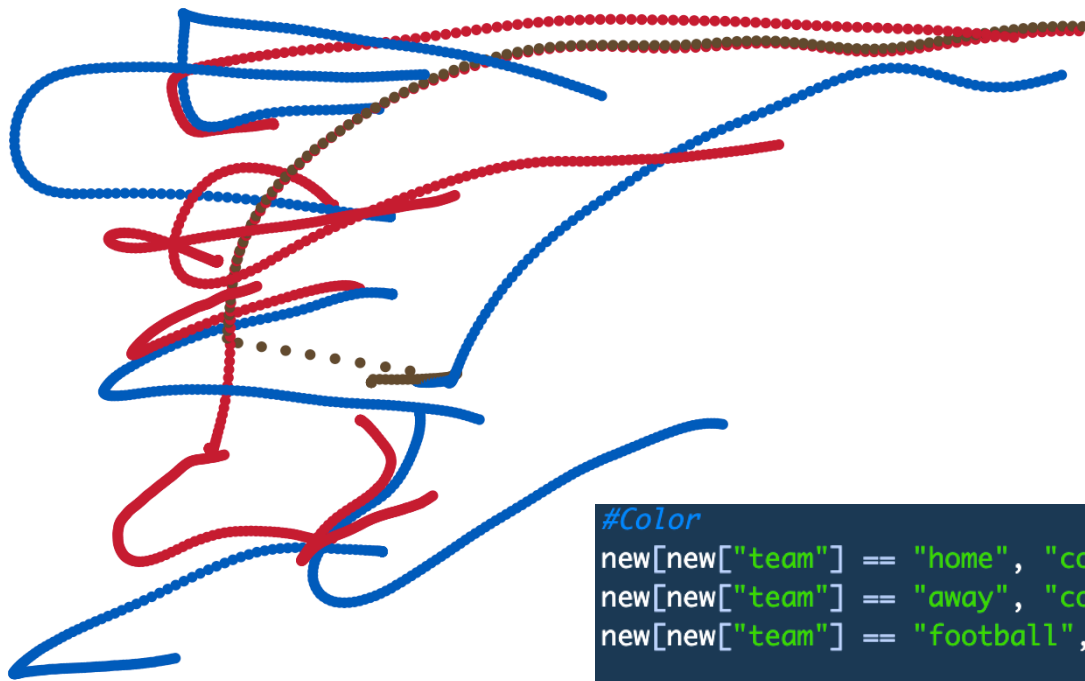






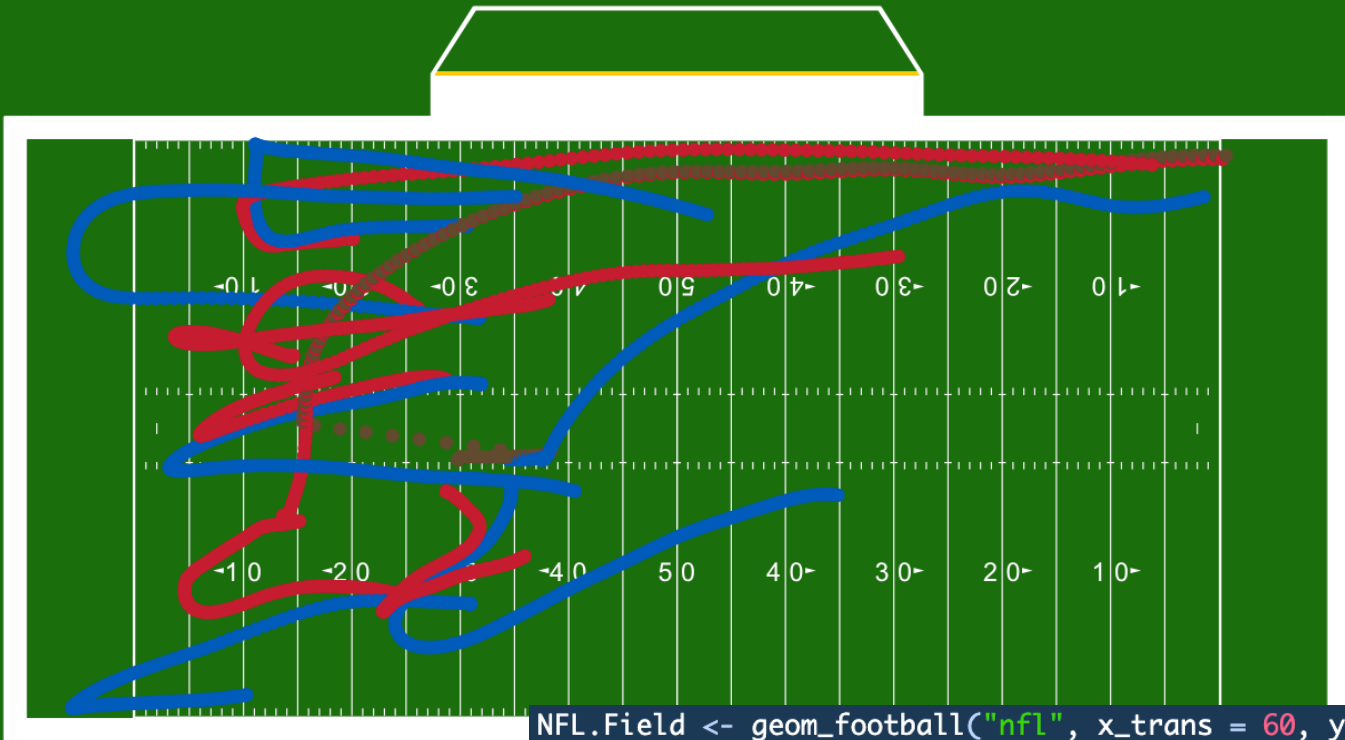


```
#B&W  
new %>%  
  ggplot(aes(x = x, y = y)) +  
  geom_point() +  
  theme_void()
```



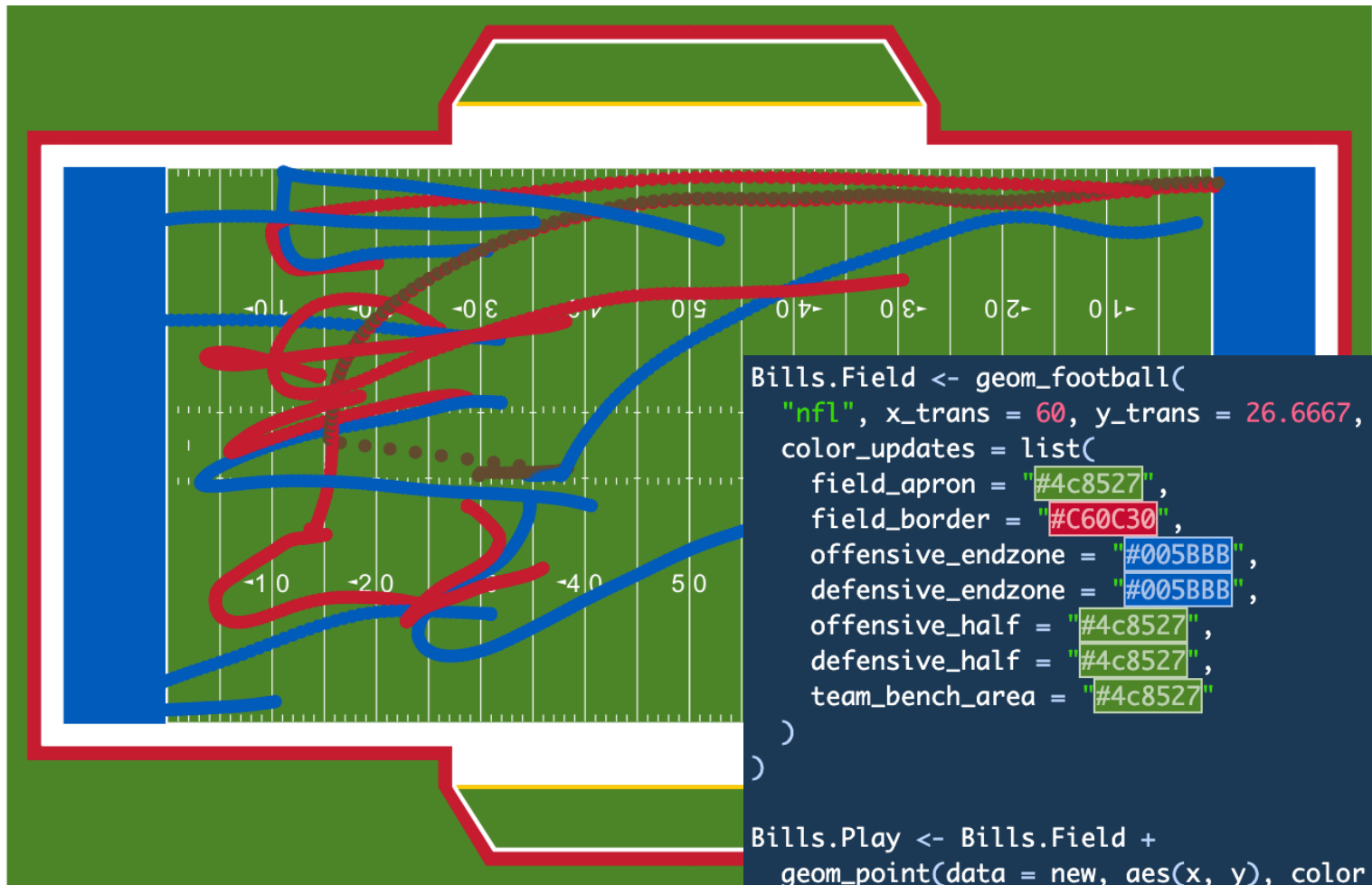
```
#Color
new[new["team"] == "home", "color"] <- "#005BBB"
new[new["team"] == "away", "color"] <- "#C60C30"
new[new["team"] == "football", "color"] <- "#624a2e"

new %>%
  ggplot(aes(x = x, y = y)) +
  geom_point(color = new$color) +
  theme_void()
```



```
NFL.Field <- geom_football("nfl", x_trans = 60, y_trans = 26.6667)
```

```
Field.Blank <- NFL.Field +  
  geom_point(data = new, aes(x, y), color = new$color)
```



```

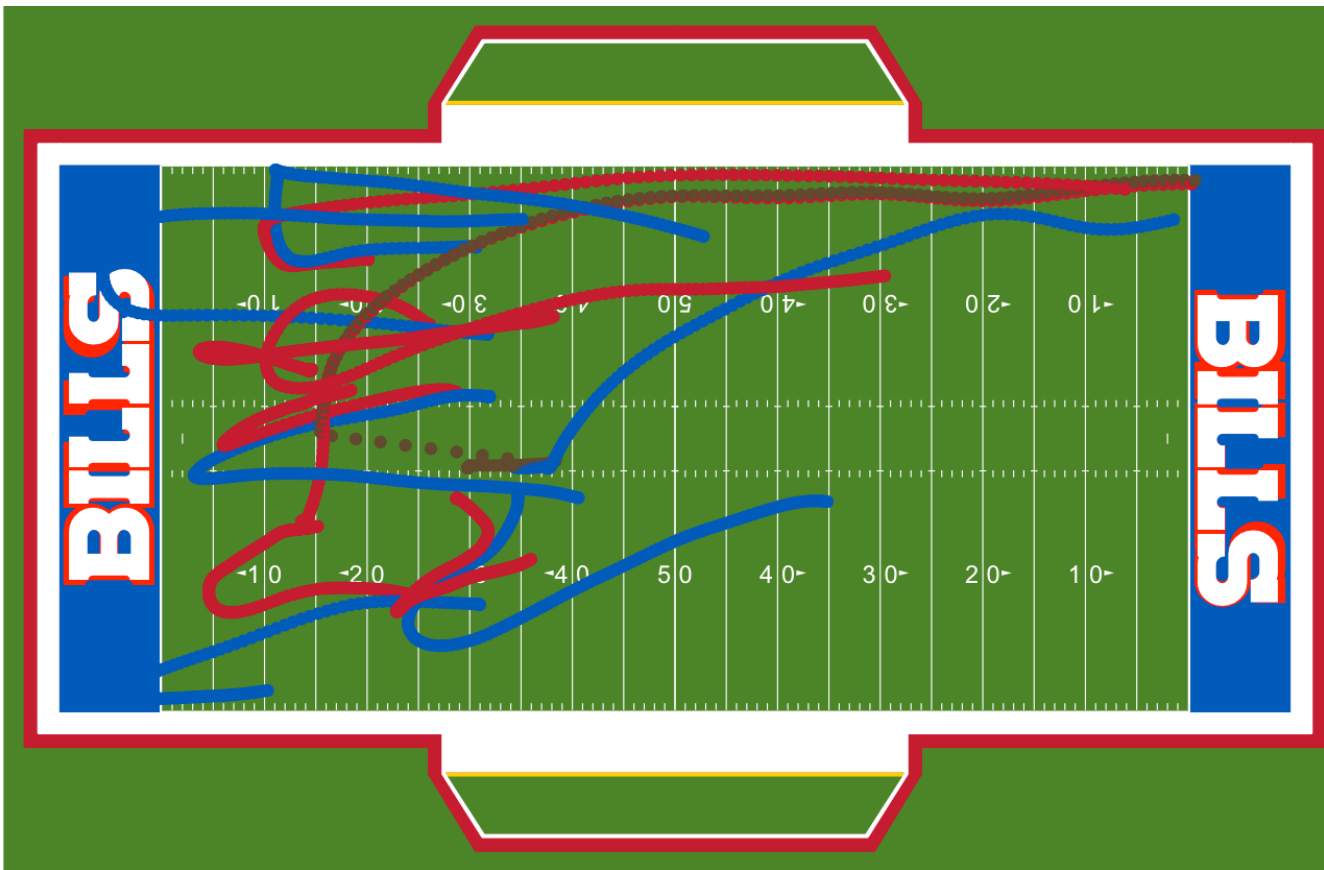
Bills.Field <- geom_football(
  "nfl", x_trans = 60, y_trans = 26.6667,
  color_updates = list(
    field_apron = "#4c8527",
    field_border = "#C60C30",
    offensive_endzone = "#005BBB",
    defensive_endzone = "#005BBB",
    offensive_half = "#4c8527",
    defensive_half = "#4c8527",
    team_bench_area = "#4c8527"
  )
)

```

```

Bills.Play <- Bills.Field +
  geom_point(data = new, aes(x, y), color = new$color)

```



```

bill = name +

# letter 1 outline in red
geom_text(aes(x = 5, y = 12.5, label = "B"),
  angle = 0,
  hjust = 0,
  vjust = 0,
  size = 17,
  color = "#E41A1C",
  family = "Bella Maria") +

# letter 2 outline in red
geom_text(aes(x = 5, y = 20, label = "I"),
  angle = 0,
  hjust = 0,
  vjust = 0,
  size = 17,
  color = "#E41A1C",
  family = "Bella Maria") +

# letter 3 outline in red
geom_text(aes(x = 5, y = 23, label = "L"),
  angle = 0,
  hjust = 0,
  vjust = 0,
  size = 17,
  color = "#E41A1C",
  family = "Bella Maria") +

# second letter in red
geom_text(aes(x = 5, y = 20, label = "I"),
  angle = 0,
  hjust = 0,
  vjust = 1,
  size = 17,
  color = "#E41A1C",
  family = "Bella Maria") +

# letter 7 outline in red
geom_text(aes(x = 5, y = 31, label = "O"),
  angle = 0,
  hjust = 0,
  vjust = 0,
  size = 17,
  color = "#E41A1C",
  family = "Bella Maria") +

# second
geom_text(aes(x = 115.5, y = 41.2, label = "O"),
  angle = 270,
  hjust = 0,
  vjust = 1,
  size = 17,
  color = "#E41A1C",
  family = "Bella Maria") +

geom_text(aes(x = 115.5, y = 31.2, label = "O"),
  angle = 270,
  hjust = 0,
  vjust = 1,
  size = 17,
  color = "#E41A1C",
  family = "Bella Maria") +

geom_text(aes(x = 115.5, y = 30.2, label = "L"),
  angle = 270,
  hjust = 0,
  vjust = 1,
  size = 17,
  color = "#E41A1C",
  family = "Bella Maria") +

geom_text(aes(x = 5, y = 24.2, label = "L"),
  angle = 270,
  hjust = 0,
  vjust = 1,
  size = 17,
  color = "#E41A1C",
  family = "Bella Maria") +

# main text in white
geom_text(aes(x = 1, y = 31, label = "BILL"),
  angle = 0,
  hjust = 0,
  vjust = 0,
  size = 17,
  color = "#FFFFFF",
  family = "Bella Maria") +

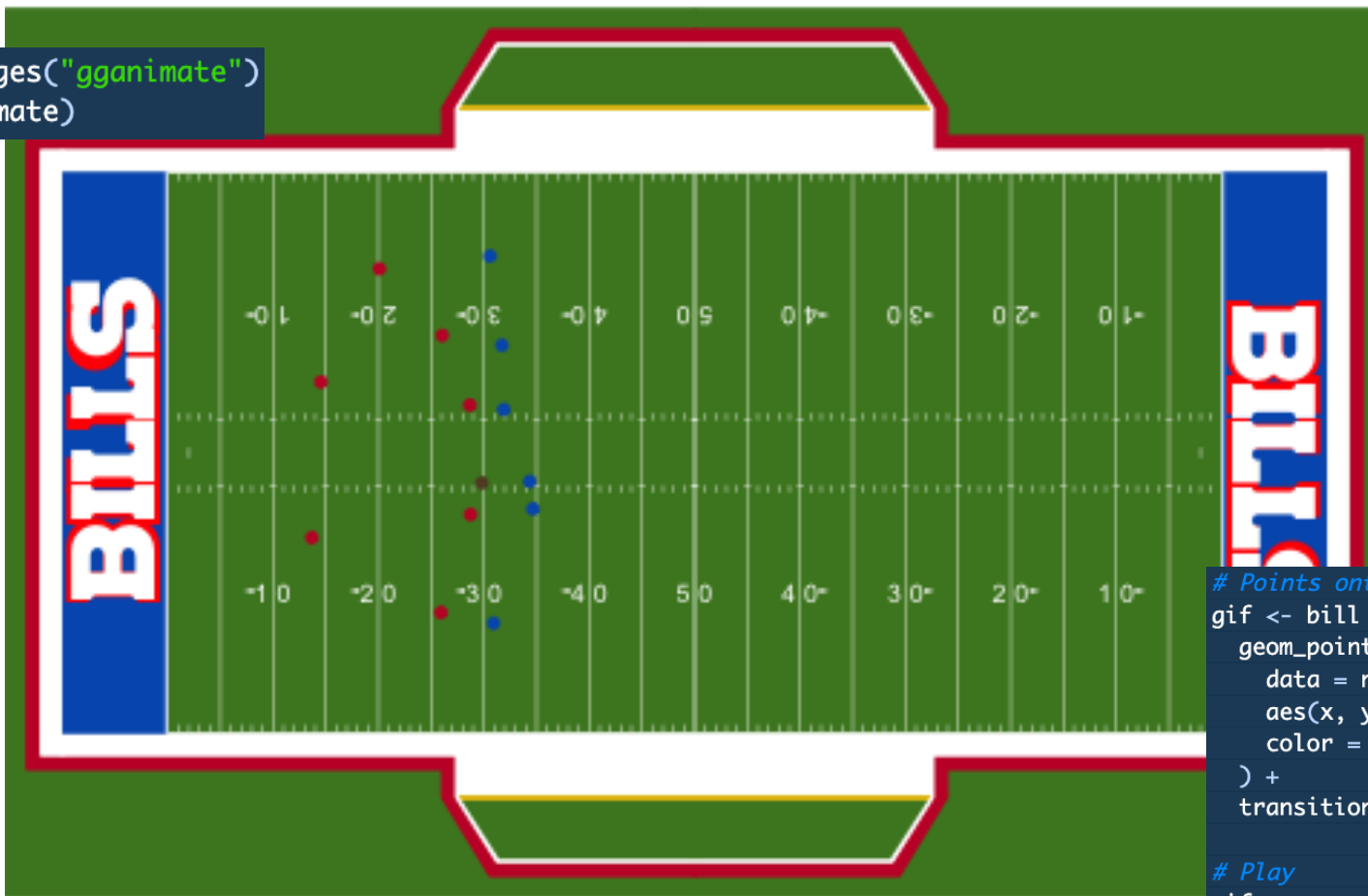
# Right side
geom_text(aes(x = 111, y = 40.7, label = "BILL"),
  angle = 270,
  hjust = 0,
  vjust = 0,
  size = 17,
  color = "#FFFFFF",
  family = "Bella Maria") +

# Regular size for main text
geom_text(aes(x = 111, y = 40.7, label = "BILL"),
  angle = 270,
  hjust = 0,
  vjust = 0,
  size = 17,
  color = "#FFFFFF",
  family = "Bella Maria") +

these, void)

```

```
install.packages("gganimate")
library(gganimate)
```



```
# Points onto field
gif <- bill +
  geom_point(
    data = new,
    aes(x, y),
    color = new$color
  ) +
  transition_time(new$frameId)

# Play
gif
```

<https://brand.illinois.edu/visual-identity/logo>

Addison Howard, Jay Evan Reid, Michael Lopez, Thompson Bliss, Will Cukierski. (2020). NFL Big Data Bowl 2021. Kaggle. <https://kaggle.com/competitions/nfl-big-data-bowl-2021>

<https://sportyr.sportsdataverse.org/articles/animating-tracking-data.html>

<https://nextgenstats.nfl.com/charts/single/all/team/2024/week/jordan-mason/MAS125056>

<https://thehealthfulideas.com/wp-content/uploads/2022/11/Tequila-Espresso-Martini-11.jpg>

<https://github.com/rossdrucker>

[https://youtu.be/9jOzY38Wq3s?si=86goQF3ERS5m\\_dJY&t=595](https://youtu.be/9jOzY38Wq3s?si=86goQF3ERS5m_dJY&t=595)

<https://nextgenstats.nfl.com/stats/top-plays/fastest-ball-carriers>

<https://nextgenstats.nfl.com/charts/single/all/team/2024/week/jordan-mason/MAS125056>