

Dodgers

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Los Angeles Dodgers 2022 Pitching Graphs

In addition to my project I wanted to incorporate some graphs that could be used for our own players performance rather than scouting other teams players. I can use these codes to do the same for opposition pitching, would just need to change the filters.

```
library(ggplot2) # Load ggplot2
library(ggdark) # Load ggdark
library(baseballr) # Load baseballr package
library(tidyr) # For gather function
library(ggnewscale) # For multiple color scales
```

```
load("~/Portfolio Projects/2022_stat_cast_data.rda")
```

#Pitch type by count Using these graphs we can see our pitchers tendencies on what kind of pitches are thrown in certain counts.

```
pitchers <- pitchers

count_diff <- rep("equal", nrow(pitchers))
count_diff[pitchers$balls < pitchers$strikes] <- "ahead"
count_diff[pitchers$balls > pitchers$strikes] <- "behind"
pitchers$count_diff <- count_diff

# Extract rows with pitchers from Selected Team
pitchers_1 <- pitchers[pitchers$pitcher_team == "LAD",]
players_1 <- unique(na.omit(pitchers_1$player_name))
pitches <- rep(0, length(players_1))
for(i in 1:length(players_1)){
  pitches[i] <- sum(pitchers_1$player_name == players_1[i], na.rm = T)
}
temp_1 <- cbind.data.frame(players_1[order(pitches, decreasing = TRUE)],
                           pitches[order(pitches, decreasing = TRUE)])
names(temp_1) <- c("players", "pitches")

sel_players <- c(1:5)

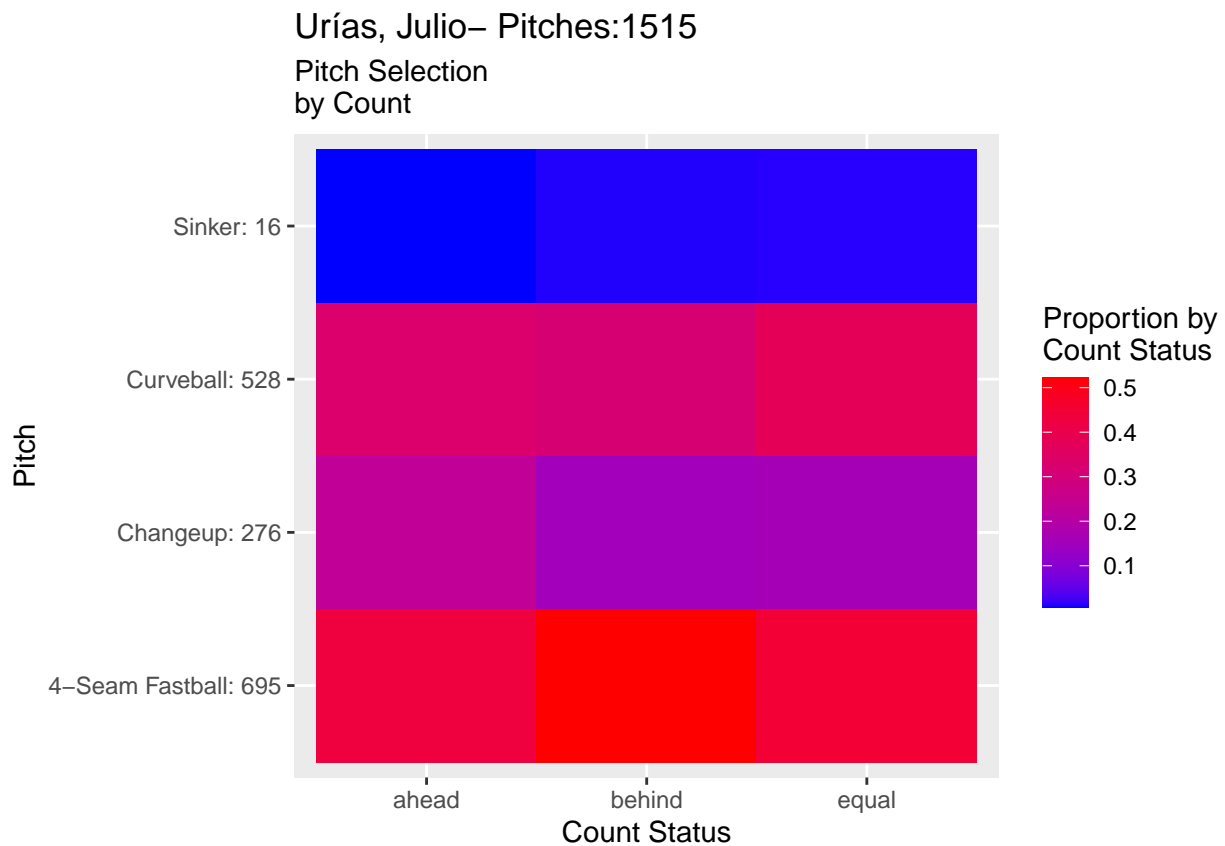
for(i in sel_players){
  player <- temp_1$players[i]
  t1 <- as.matrix(table(pitchers$pitch_name[pitchers$player_name == player], pitchers$count_diff[pitcher
```

```

p_sums <- rowSums(t1)
rownames(t1) <- paste(rownames(t1), ":", p_sums, sep = "")
temp <- colSums(t1)
t1 <- as.data.frame(t1)
t1$Freq[t1$Var2 == "ahead"] <- t1$Freq[t1$Var2 == "ahead"]/temp[1]
t1$Freq[t1$Var2 == "behind"] <- t1$Freq[t1$Var2 == "behind"]/temp[2]
t1$Freq[t1$Var2 == "equal"] <- t1$Freq[t1$Var2 == "equal"]/temp[3]
names(t1)[1:2] <- c("pitch", "count")
g_1 <- ggplot(t1,
              aes(x = count, y = pitch)) +
  geom_tile(aes(fill = Freq)) +
  scale_fill_gradient(low = "blue",
                    high = "red") +
  labs(x = "Count Status",
       y = "Pitch",
       fill = "Proportion by\nCount Status",
       title = paste(player, "- Pitches:", temp_1$pitches[i], sep = ""),
       subtitle = "Pitch Selection\nby Count")

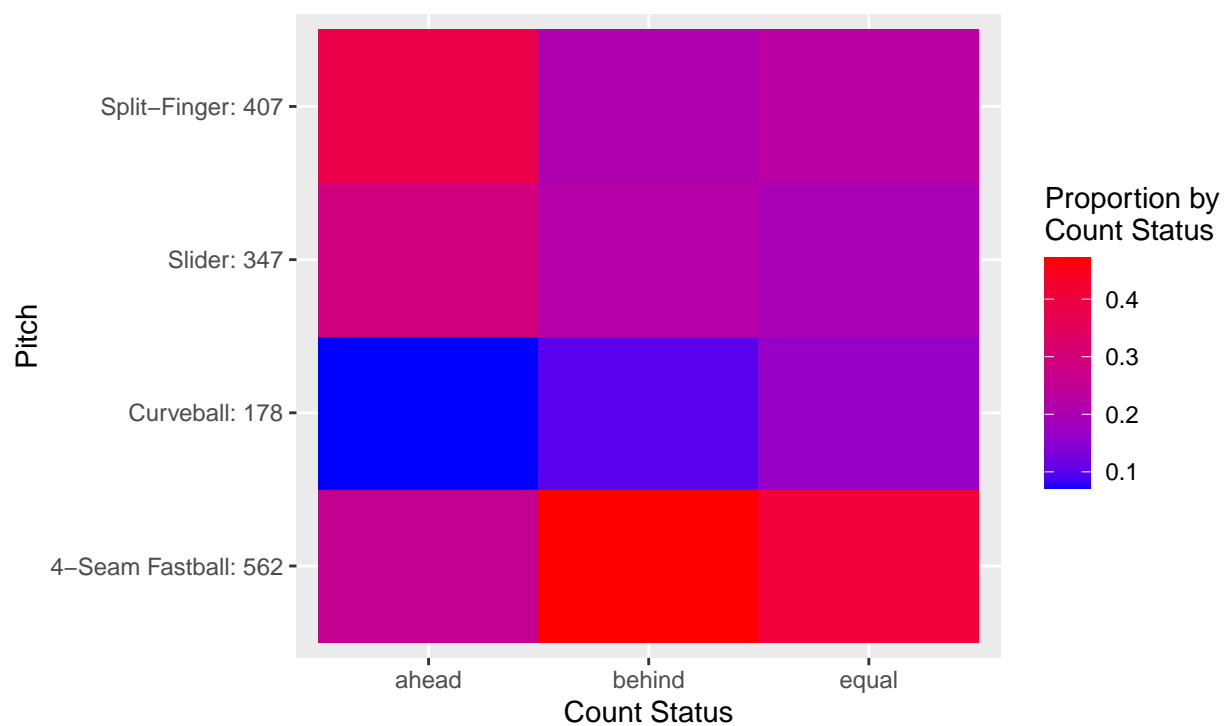
print(g_1)
}

```



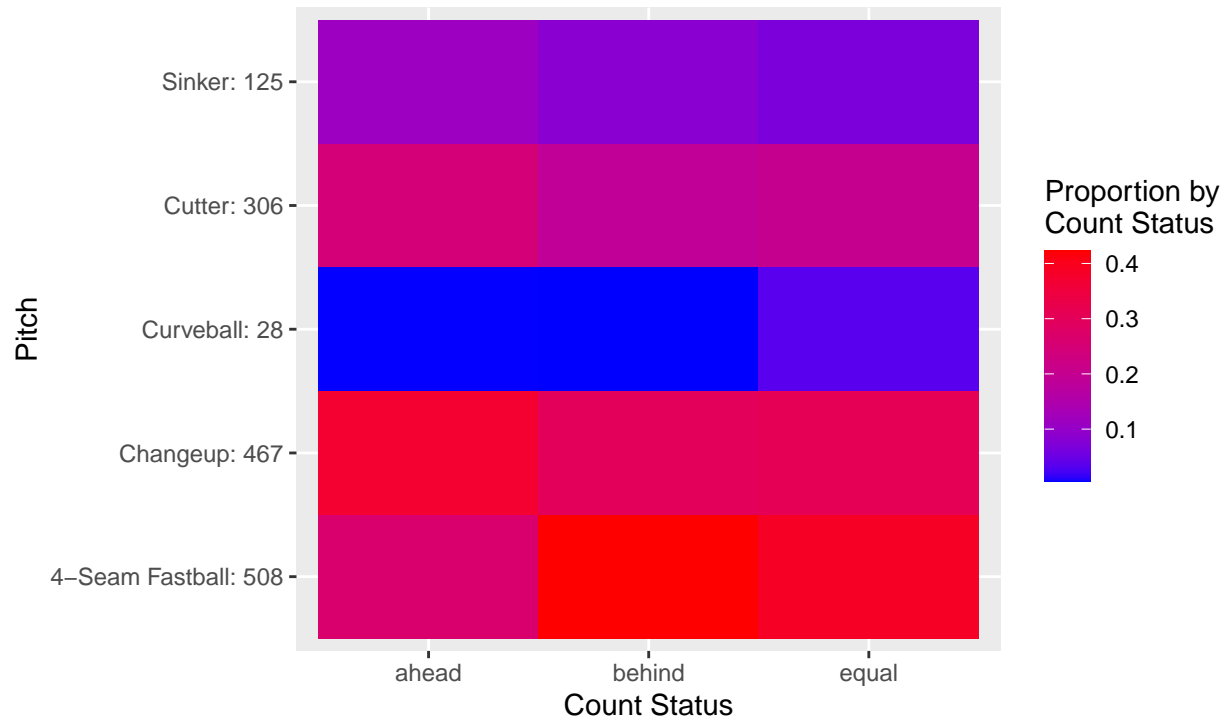
Gonsolin, Tony– Pitches:1494

Pitch Selection
by Count



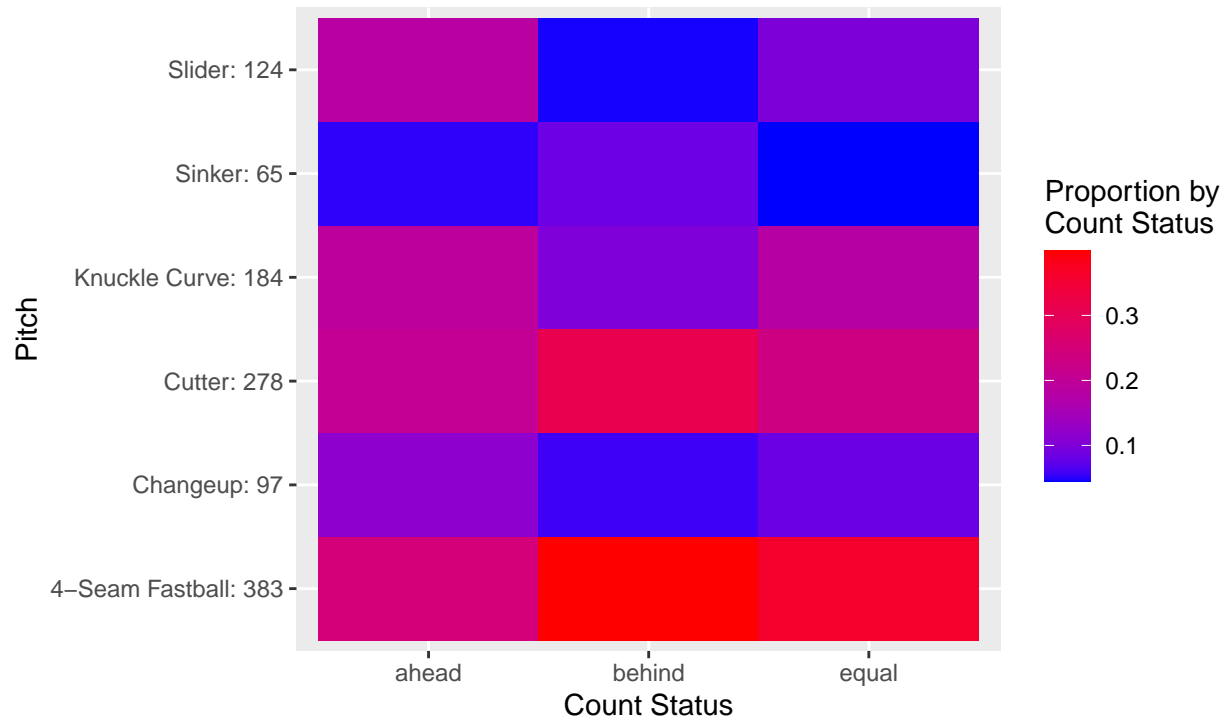
Anderson, Tyler– Pitches:1434

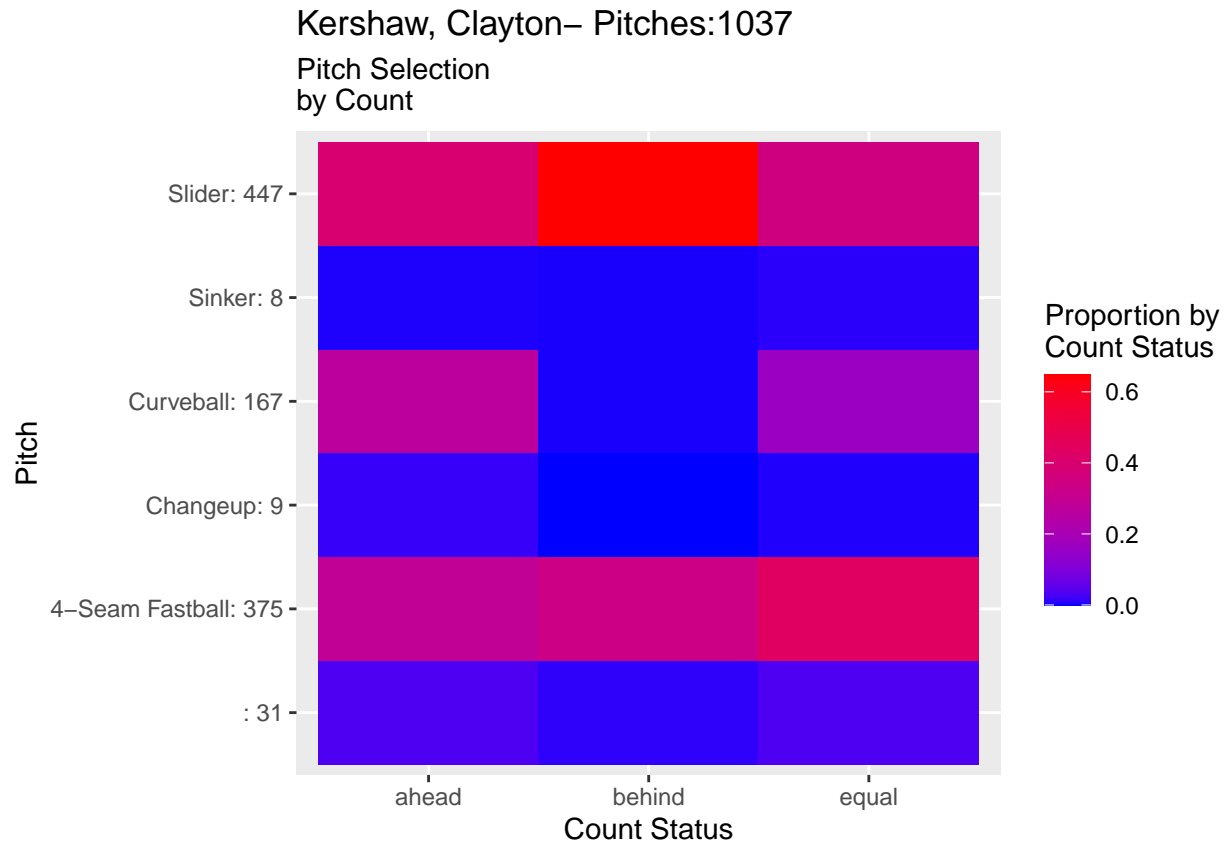
Pitch Selection
by Count



Buehler, Walker– Pitches:1131

Pitch Selection
by Count





Ball movement

These graphs will show the flight path of the ball from the pitchers hand to when it crosses the plate.

```
sel_players <- c(1:5)

for(i in sel_players){
  player <- temp_1$players[i]
  player_data <- pitchers[pitchers$player_name == player,]
  g_1 <- ggplot(player_data[player_data$description %in% c("called_strike", "hit_into_play",
                                                         "hit_into_play_no_out", "hit_into_play_score",
                                                         "swinging_strike"),],
               aes(x = release_pos_x,
                   xend = plate_x,
                   y = release_pos_z,
                   yend = plate_z,
                   color = pitch_name)) +

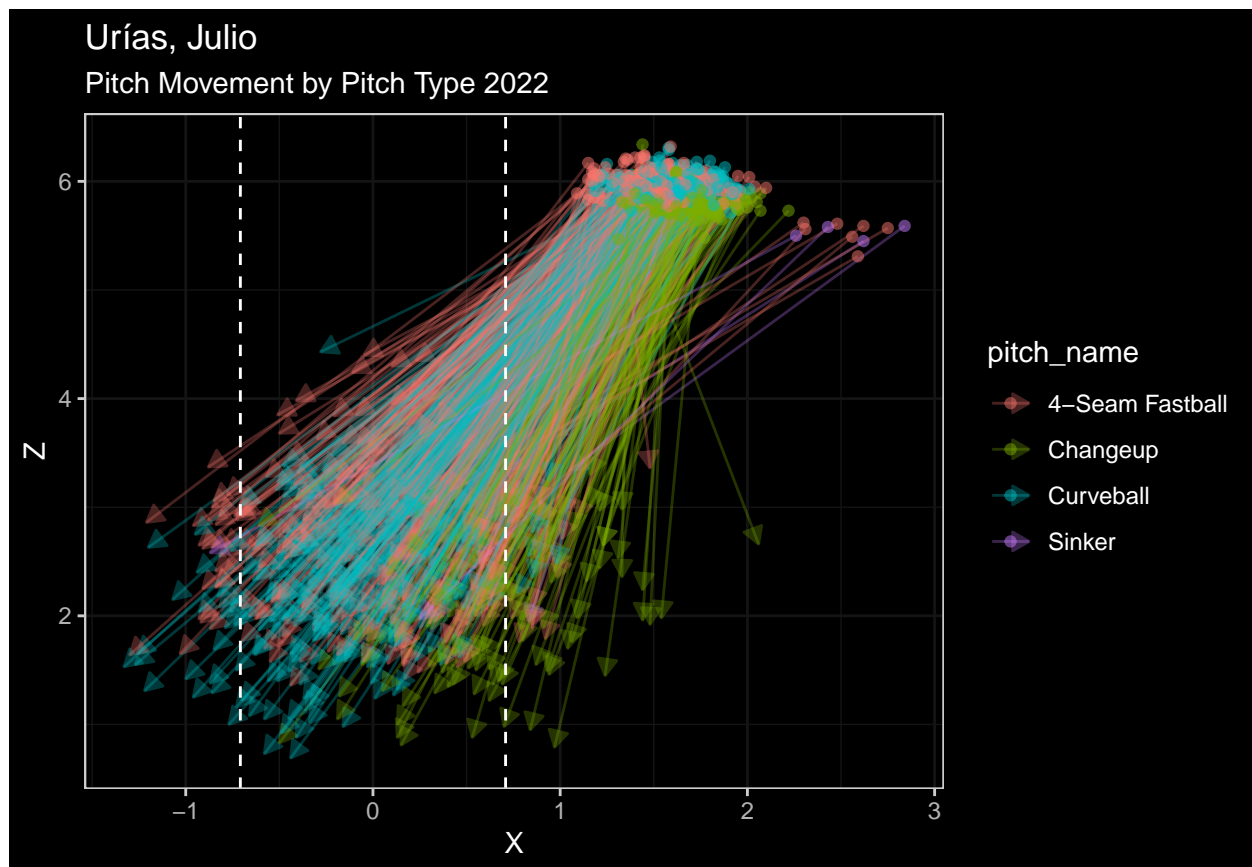
  geom_segment(alpha = 0.3,
              arrow = arrow(length = unit(0.25, "cm"),
                           type = "closed")) +

  dark_theme_bw() +
  geom_vline(xintercept = -0.7083333, linetype = 2) +
  geom_vline(xintercept = 0.7083333, linetype = 2) +
```

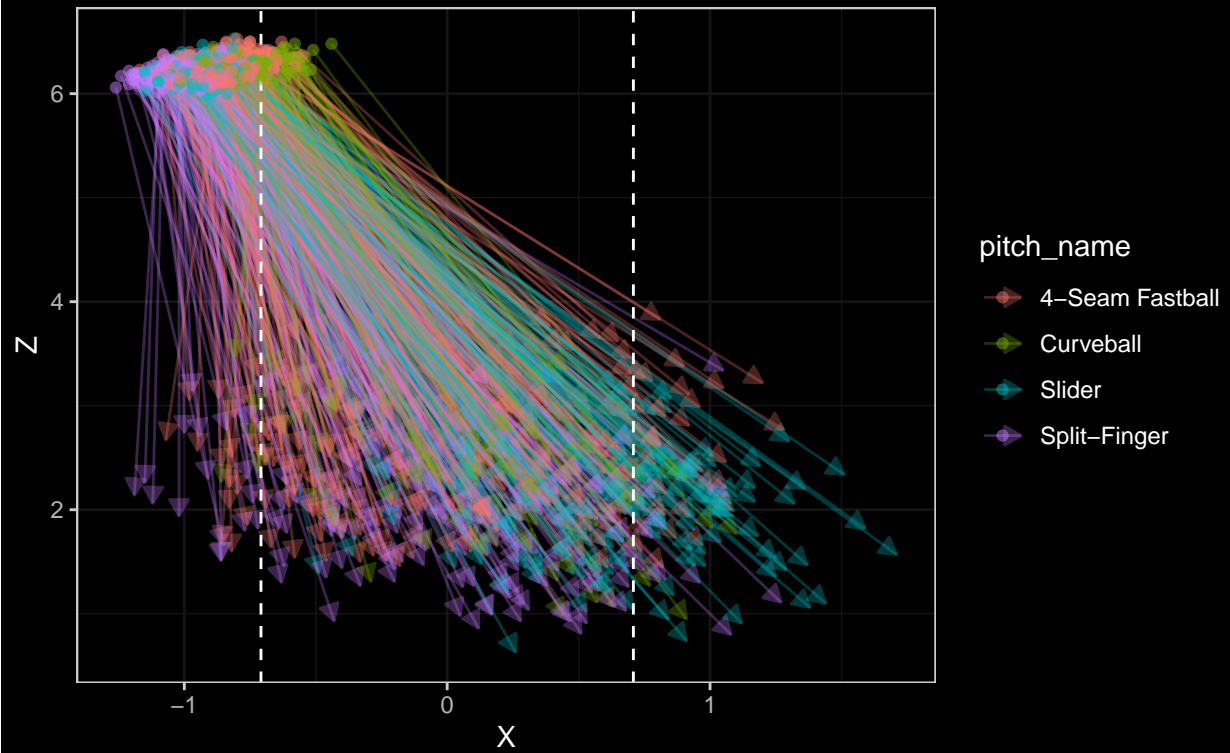
```

#scale_color_gradient(low = "blue", high= "red") +
geom_point(inherit.aes = FALSE, aes(x = release_pos_x,
                                   y= release_pos_z,
                                   color = pitch_name),
          alpha = 0.5) +
labs(x = "X", y = "Z",
     title = paste(player),
     subtitle = "Pitch Movement by Pitch Type 2022")
print(g_1)
}

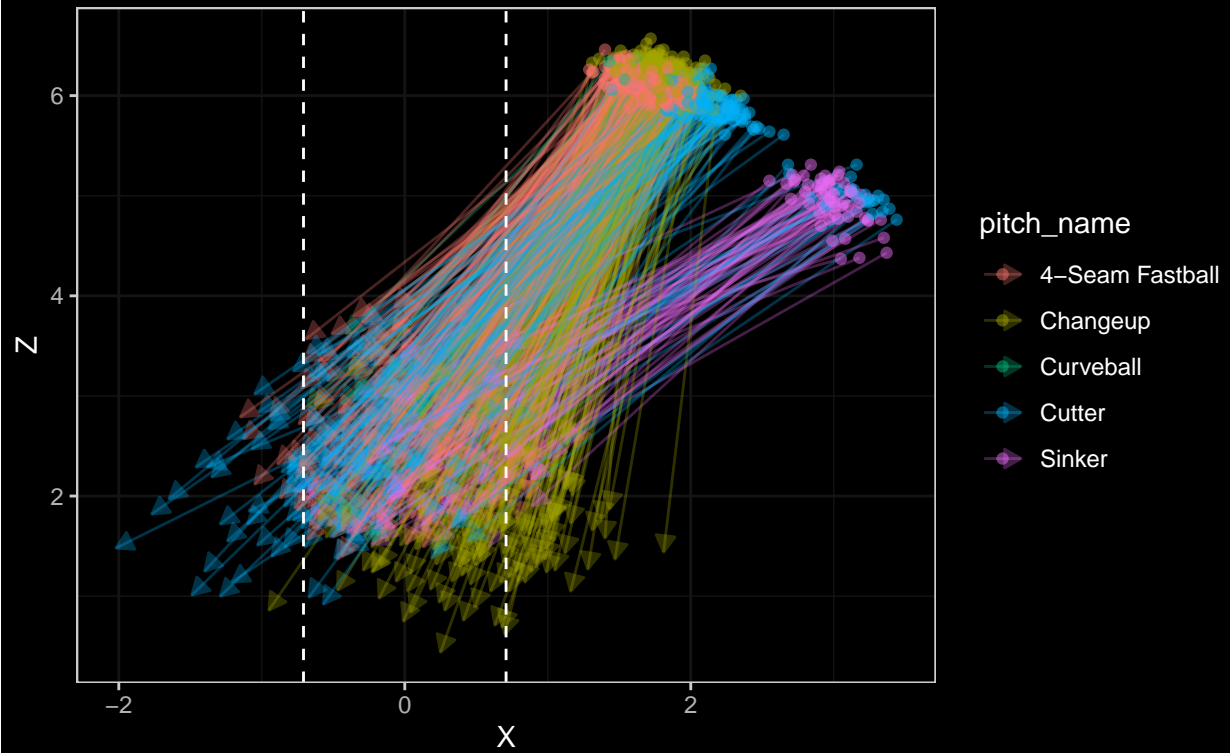
```



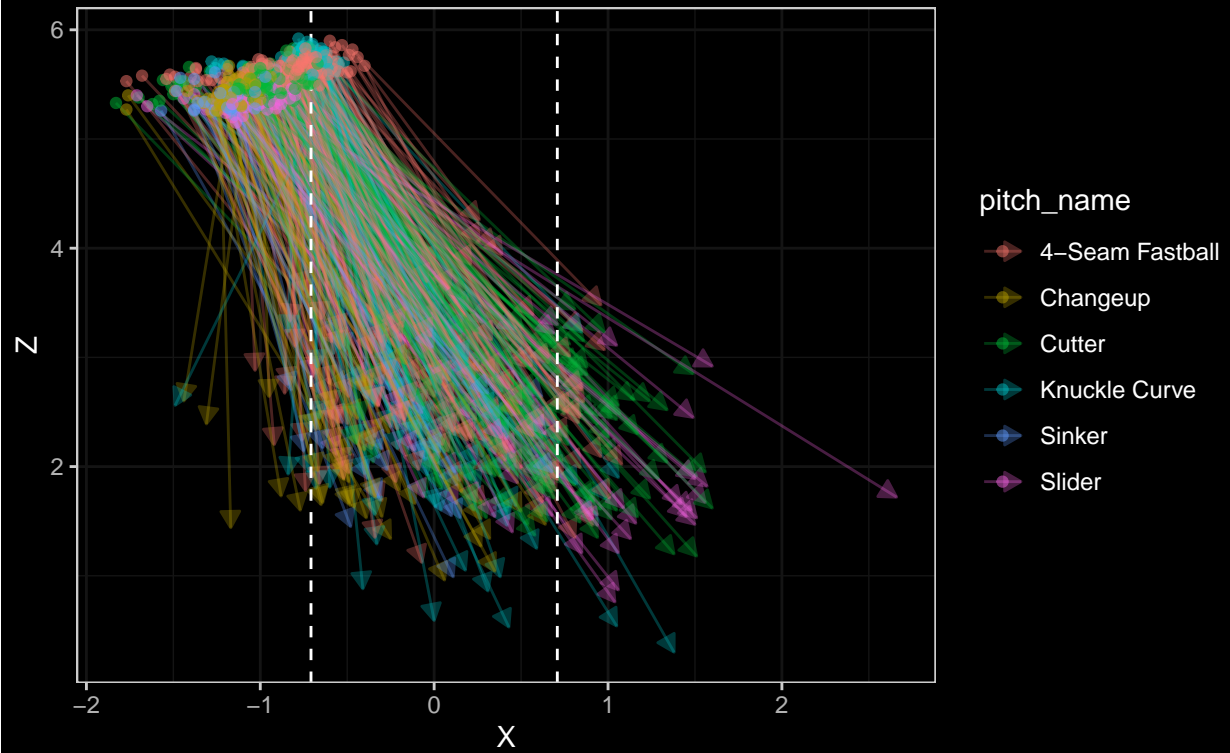
Gonsolin, Tony
Pitch Movement by Pitch Type 2022



Anderson, Tyler
Pitch Movement by Pitch Type 2022



Buehler, Walker
Pitch Movement by Pitch Type 2022



Kershaw, Clayton
Pitch Movement by Pitch Type 2022

