



COMPLETED!

# SPRINT #1

Timeframe: Wed, March 19 – Tues, April 02

## 1 USER STORY IN THIS SPRINT:

- Preparing the Offense for the Rematch (Tableau project)

## USER STORY: Preparing the Offense for the Rematch

“I want to create reports for my HC and offensive team coaches that highlight elements of our last game against this opponent. It must be easy to generate and enable the coaches to see animated plays. Some presentation in Tableau is ok (animated plays will be on the web).”

## Development Notes

- 2022 NFL data (2024 NFL Big Data contest) is the best in incorporating a mix of plays, but the worst in terms of available player tracking data (average play segment lengths are about 2 secs).
- After not being able to find a source for 2022 player tracking data, I decided to just take some similar plays from 2018 and change some player names to make it look seamless.
- The animation script is based on work I found in Kaggle by Ammar Alhaj Ali ([link](#)).
- I removed the SQL and exported that data from Tableau – as I needed it for the data visualizations in Tableau and didn’t want to duplicate effort.
- Credits will be as follows:
  - Credit to [Ammar Alhaj Ali \(link\)](#) for the player animation script using Plotly Express. I modified it for the look-and-feel, to add new football play meta data, and removed the SQL (but used those concepts in Tableau!).
  - All data courtesy of the NFL – taken from their 2024 and 2022 NFL Big Data competitions. Check that out at: [NFL Football Operations](#)

## STANDUPS

- **STANDUP #1** (Mar 24) I’ve completed the general framework for the reports for Downs, which should be the basis for all. Screenshot is available here: [view Report 1 image]
- **STANDUP #2** (Mar 25) Longest plays report is drafted and ready for integration into the Tableau Dashboard. Final major task is integrating the jump to a specific animated play from within a Tableau sheet in a dashboard. [view Report 2 image]
- **STANDUP #3** (Mar 26) Had to reformat the animation to fit Tableau dashboard window. Considered using an HTML pop-up w/ a small window size, but this is cleaner. Need to convert script to accept multiple input files and join them – as my animation script just used input from a single file. Thus, I can do data from 2018, 2021, and 2022 (at least). No blockers at the moment!
- **STANDUP #4** (Mar 28) A bit of an issue testing the 2022 data. Found a bug in the original script for

2018 data (starting line not actually correct) and then plotting is off. Formatting of additional data is done, so just need a few days to get the plotting issue resolved.

- **STANDUP #5** (Mar 29) OK, got 2021 data to load (utilizing 2018 script) and discovered 2022 data is just very short. Need to make a decision with respect to where I store my source data – manipulate it in Tableau and export or within Python. Regardless, it looks like I should have a way – next sprint update will be Monday. I also need to explore whether I can get complete tracking data through this R resource for the NFL – that would make things nicer.
- **STANDUP #6** (Apr 01) Tableau export to Python to create play animation is complete and tested. Need to integrate sample 2018 plays into Longest Plays dashboard, clean them up a bit, then work on the overall project dashboard to link to Longest Plays, Player Performance on Downs Report, and maybe add a few more. On Schedule to publish tomorrow (public Tableau or video).
- **STANDUP #7** (Apr 02) Just need to organize the Tableau Dashboards and get it published. Here's a short video of work-in-progress.

## OUTPUTS

### Game Prep System in Tableau

[Short Clip of Tableau Dashboard Work-In-Progress](#)

[Final Tableau Dashboard](#)