Fantasy Football Draft Assistant

The General Managers - Group 7

Data Science Capstone Project
Data Acquisition and Preprocessing Report

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Identifying Data

Data Sources:

The dataset that we will be using to develop the Fantasy Football Draft Assistant is a combination of two main subsets of data. The first subset comes in the form of NFL player and team statistics from the 2022-2024 seasons, including passing, rushing, receiving, kicking, team defense, and special teams data. These statistics were scraped primarily from Pro Football Reference, with additional scraping from FantasyPros, StatMuse, and NFL.com. The other subset consists of information used explicitly in the context of fantasy football, primarily average draft position (ADP) for all players and teams within the same 2022-2024 timeframe. This ADP data was scraped directly from FantasyPros, however the data itself is consolidated from four separate fantasy football draft data sources. These include ESPN, NFL.com, RTSports, and Sleeper.

Each of our four primary data sources for the NFL and fantasy football statistics were selected specifically due to their free access and ease of scraping, accuracy, and thoroughness, with more than a decade's worth of additional data being available if needed in the future. Pro Football Reference was specifically chosen as the primary source because of its "golden standard" and relevancy within the sports and football analytics community. Direct links to all of the sources cited can be found in the Appendix section of this report.

Acquisition Process:

All data for this project was initially acquired through the public sources described above using a custom coded web scraper. The acquisition process, while involving varying sources, required several functions and lines of tailored code to integrate the data into one main file seamlessly. The data regarding passing, rushing, receiving, kicking, team defense, special teams, extra point conversions, and ADP was scraped using the functions of the requests and beautifulsoup python packages, respectively. Specific additional data regarding the points allowed by each team defense per season also had to be scraped and calculated individually by team. This was accomplished by creating an additional scraper that accessed all individual team defense pages on Pro Football Reference, calculated the number of fantasy points earned each week based on points allowed to the opposing team, and summed the fantasy points for the whole season to append to the dataset.

These statistics were then transformed and combined using several strategies to clean the data for proper alignment. Several players required their name column to be cleaned so that they matched the names used from our primary data source, Pro Football Reference. Regex was used to clean player names under these instances, including removing name suffixes (Jr., Sr., II, etc.) and custom replacements for known mismatches. For example, a player named "Gabe Davis" for one source versus "Gabriel Davis" on Pro Football Reference required custom code for indexing. Similarly, some additional coding was required to remove the single "team" rows for players who had played on multiple teams in a singular season, which was marked using "2TM/"3TM"/"4TM" tags. Finally, all acquired and cleaned data per season was merged together and indexed using player names as the key. Sample screenshots of some of the code and helper functions used to assist in the acquisition of the data can be found in the Appendix section of the report.

Issues:

While our data acquisition process has been largely successful, there are still a few unresolved challenges that we need to consider moving forward. One of the primary issues is determining how many years of data should be included in our model. Using a larger historical dataset provides a more comprehensive statistical foundation, but it also introduces challenges related to shifting team dynamics, player turnover, and evolving style of play. Conversely, a smaller dataset focused on more recent seasons ensures relevance but may limit the robustness of our recommendations due to smaller sample sizes. Similarly, another key debate is whether to structure our dataset in a "wide" or "tall" format. A wide dataset, where each row represents a player with multiple columns capturing different statistics over time, makes feature engineering and modeling more straightforward in some respects. However, it can lead to high-dimensionality issues that complicate model performance. A tall dataset, where player statistics are stacked across multiple rows for different seasons or games, allows for temporal trends to be captured more naturally but introduces additional complexity in merging and structuring the data for analysis. Another consideration related to our future modeling is how we plan to group player positions. While offensive players, defenses, and kickers each play distinct roles in fantasy football, their statistical structures differ significantly. Treating them as separate groups allows for more tailored modeling, but it increases the complexity of feature engineering. Additionally, given the likely extensive number of columns in our dataset, thoughtful feature selection and engineering will be critical. Merging multiple sources introduces redundant and potentially collinear features, which need to be addressed through techniques such as variance inflation factor analysis and correlation matrices. Identifying which features provide meaningful signal versus those that introduce noise or multicollinearity will be an ongoing part of our exploratory data analysis efforts. Determining the optimal way to handle these issues, especially considering the different styles of models we plan on utilizing, remains open to change as we move forward and refine our modeling approaches. Our current plan is to columnize the 3 years of collected data (2022-2024) individually as a compromise between a strictly “wide” or “tall” approach while still holding the option of utilizing our flexible scraper to change our approach as we test and optimize our models.

From a more technical standpoint, web scraping constraints also present challenges that may require adjustments in our process. Some of our primary data sources have rate limits that prevent excessive requests, requiring the use of time.sleep functions and, in some cases, a VPN to manage access. If scraping at scale becomes necessary, future iterations of the project may need to incorporate multiple users or alternative scraping strategies to avoid hitting limits. Similarly, while injury and bye week data would add valuable context to our draft recommendations, automating the acquisition of this information in real time presents significant hurdles. Injury reports and schedule updates require constant monitoring and integration, which is beyond the scope of this project’s current iteration. Future enhancements could explore incorporating live APIs for this data, but for now, these factors will remain unaccounted for in our models. While these issues do not prevent us from moving forward with our Fantasy Football Draft Assistant, we will need to address these challenges prior to any major analysis to ensure that our final models are both accurate and scalable.

Data-Processing

We have performed several preprocessing steps to ensure data quality, consistency, and usability. These steps addressed issues related to missing values, data sparsity, feature engineering, and data structure. Below, we outline the separate data issues and the steps taken to resolve them.

Average ADP Calculation

The average of the ESPN, Sleeper, NFL, and RT Sports ADPs were stored in a variable called "Average ADP". This calculation gives a holistic view of how the player was drafted on average.

Positional ADP Calculation

To provide more precise positional rankings, we calculated each player's "Positional ADP" which reflects a player's average draft position relative to others at the same position. This allows for more direct comparisons between players within their respective roles, rather than across all positions.

Clarifying Year and Removing League Averages

Before merging data across multiple seasons, we ensured that each column name explicitly included the corresponding year, rather than keeping the generic label. This preserves the seasonal context of each statistic and prevents potential confusion when working with multi-season data. Additionally, we removed league-wide averages, as they do not contribute useful information for individual player recommendations and could introduce noise into our models.

Handling Missing Data

Issues with missing data were handled in separate ways in order to preserve the appropriate context of the data:

- Blank "ADP" values for players in the dataset were filled with a 301 placeholder value. This value was chosen due to the fact that fantasy drafts typically consist of 300 picks and our original data sources did not extend beyond this value.
- Other missing data values are currently being left unadjusted due to the way different models handle or prefer true nulls versus intentional zero values. These situations in our data will likely be treated on a case-by-case basis depending on which specific machine learning techniques are being utilized for modeling.

Position Standardization and Category Merging

Some position labels required custom adjusting to align with standard fantasy football conventions:

- Fullbacks (FB) were converted to Running Backs (RB), and Punters (P) were converted to Kickers (K) since they function similarly in fantasy scoring and drafting.
- For kickers, all statistics regarding field goals ranging from 0-39 yards were consolidated into one column because they share the same fantasy point value, reducing unnecessary dimensionality.

- Several miscellaneous position groups, such as Offensive and Defensive Linemen (OL/DL), were removed because they are rarely drafted or used in fantasy scoring situations, likely improving the robustness of future player recommendations
- In one specific example, Taysom Hill of the New Orleans Saints, initially tagged as a unique hybrid Tight End/Quarterback (TE/QB), was reclassified as a TE due to his recent primary usage in the position rather than at QB.

Fantasy Football Scoring Calculations

To account for different fantasy football league formats, we calculated the PPR (Points Per Reception) and Standard Scoring values for each player per season based on widely accepted scoring rules. This ensures that the Fantasy Football Draft Assistant will be able to provide recommendations for drafters based on their individual league scoring settings.

Data Veracity and Ambiguity

- Veracity: We have no significant concerns because our primary data sources, especially Pro Football Reference, are highly reputable with easily verifiable statistics.
- Ambiguity: Fantasy football scoring is directly derived from well-defined and agreed upon formulas, eliminating ambiguity in our player's scoring values and eventual projections.

Interoperability and Future Preprocessing Considerations

As mentioned in previous sections, certain elements of the dataset structure will be defined differently for separate machine learning models. Some models may require and benefit from further preprocessing such as feature selection and engineering and collinearity reduction. Since we intend to explore multiple machine learning models, such as XGBoost, Neural Network, and Regression-based models, we plan to keep our preprocessing pipeline flexible. The exact transformation and feature engineering steps will vary depending on the final approaches the General Managers choose to use. As we refine our model choices, we will adjust our preprocessing strategies accordingly based on exploratory data analysis, model performance, and trial-and-error evaluations.

Appendix

GitHub Repository: https://github.com/caleb10miller/FantasyFootballHelper/tree/web-scraping

Data Sources

- Pro Football Reference
  - Passing Stats
    - https://www.pro-football-reference.com/years/2022/passing.htm
    - https://www.pro-football-reference.com/years/2023/passing.htm
    - https://www.pro-football-reference.com/years/2024/passing.htm
  - Rushing Stats
    - https://www.pro-football-reference.com/years/2022/rushing.htm
    - https://www.pro-football-reference.com/years/2023/rushing.htm
    - https://www.pro-football-reference.com/years/2024/rushing.htm
  - Receiving Stats
    - https://www.pro-football-reference.com/years/2022/receiving.htm
    - https://www.pro-football-reference.com/years/2023/receiving.htm
    - https://www.pro-football-reference.com/years/2024/receiving.htm
  - Kicking Stats
    - https://www.pro-football-reference.com/years/2022/kicking.htm
    - https://www.pro-football-reference.com/years/2023/kicking.htm
    - https://www.pro-football-reference.com/years/2024/kicking.htm
  - Team Defensive Stats
    - https://www.pro-football-reference.com/years/2022/opp.htm
    - https://www.pro-football-reference.com/years/2023/opp.htm
    - https://www.pro-football-reference.com/years/2024/opp.htm
- FantasyPros
  - Special Teams Stats
    - https://www.fantasypros.com/nfl/stats/dst.php?year=2022
    - https://www.fantasypros.com/nfl/stats/dst.php?year=2023
    - https://www.fantasypros.com/nfl/stats/dst.php?year=2024
  - ADP Stats
    - https://www.fantasypros.com/nfl/adp/ppr-overall.php?year=2022
    - https://www.fantasypros.com/nfl/adp/ppr-overall.php?year=2023
    - https://www.fantasypros.com/nfl/adp/ppr-overall.php?year=2024
- StatMuse
  - 2-Point Conversion Stats
    - https://www.statmuse.com/nfl/ask/most-2-point-conversion-leaders-in-the-nfl-2022
    - https://www.statmuse.com/nfl/ask/most-2-point-conversion-leaders-in-the-nfl-2023
    - https://www.statmuse.com/nfl/ask/most-2-point-conversion-leaders-in-the-nfl-2024

- NFL.com
    - Defensive Scoring Stats
        - https://www.nfl.com/stats/team-stats/defense/scoring/2022/reg/all
        - https://www.nfl.com/stats/team-stats/defense/scoring/2023/reg/all
        - https://www.nfl.com/stats/team-stats/defense/scoring/2024/reg/all

Data Definitions

- Offensive Statistics
    - Passing Attempts: The number of times a player attempted to throw a pass.
    - Passing Completions: The number of successful completed passes by a player.
    - Passing Yards: The total yards gained by a player throwing the ball.
    - Passing Touchdowns: The number of touchdowns thrown by a player.
    - Interceptions Thrown: The number of times a player's pass was intercepted by the defense.
    - Rushing Attempts: The number of times a player ran the ball.
    - Rushing Yards: The total yards gained by a player rushing the ball.
    - Rushing Touchdowns: The number of touchdowns scored on rushing plays.
    - Targets: The number of times a receiver was thrown the ball.
    - Receptions: The number of passes successfully caught by a player.
    - Receiving Yards: The total yards gained by a player from caught passes.
    - Receiving Touchdowns: The number of touchdowns scored from caught passes.
    - Fumbles: The number of times a player lost possession of the ball.
    - Fumbles Lost: The number of fumbles that resulted in the opposing team recovering the ball.
    - 2-Point Conversions (XP2): The number of successful two-point conversions scored by a team.
- Defensive Statistics
    - Total Yards Allowed: The total yards the defense gave up to the opposing team.
    - Total Plays: The total number of plays faced by the defense.
    - Takeaways: The total number of times the defense regained possession from the opposing team (interceptions + fumbles recovered).
    - First Downs Allowed: The number of first downs given up by defense
    - Passing Yards Allowed: The total yards given up through passing plays.
    - Passing Touchdowns Allowed: The number of touchdowns given up on passing plays.
    - Rushing Yards Allowed: The total yards given up through rushing plays.
    - Rushing Touchdowns Allowed: The number of touchdowns given up on rushing plays.
    - Penalties Committed: The number of penalties committed by the defense.
    - Penalty Yards: The total yards lost due to penalties committed by the defense.
    - First Downs by Penalty: The number of first downs awarded to the opposing team due to defensive penalties.
    - Percent Drives Scored On: The percentage of opponent drives that resulted in a score.
    - Percent Drives Takeaway: The percentage of opponent drives that ended in a turnover for the defense.

- Special Teams (ST) Statistics
    - Field Goals Attempted/Made: The number of field goals (by distance) attempted and successfully made.
    - Extra Points Attempted/Made (XP): The number of extra-point kicks attempted and made after touchdowns.
    - Special Teams Sacks: The number of sacks recorded by the special teams unit.
    - Special Teams Interceptions: The number of passes intercepted by the special teams unit.
    - Special Teams Fumble Recoveries: The number of fumbles recovered by the special teams unit.
    - Special Teams Forced Fumbles: The number of times the special teams unit forced an opponent to fumble.
    - Special Teams Safeties: The number of safeties (2-point defensive plays) recorded by the special teams unit.
    - Special Teams Touchdowns: The number of touchdowns scored by the special teams unit.
- Fantasy Football Terminology
    - Fantasy Points From Points Allowed: The cumulative number of fantasy points earned by a team defense based on the number of points they allowed in each game.
    - Average Draft Position (ADP): The average position a player is selected in fantasy football drafts across our multiple sources.
    - Positional ADP: A player's draft position relative to others at the same position.
    - PPR/Standard Fantasy Points Scored: The total fantasy points scored using a PPR or Standard scoring system.

Sample Code/Helper Functions

```
def _clean_header_rows(df):
    """Remove repeated header rows labeled 'Player' or 'Rk' within the DataFrame body."""
    if "Player" in df.columns:
        df = df[df["Player"] != "Player"]
    if "Rk" in df.columns:
        df = df[df["Rk"] != "Rk"]
    return df
```

```
def _drop_multiindex(df):
    """Drop one level if df.columns is a MultiIndex (PFR often has multi-level table headers)."""
    if isinstance(df.columns, pd.MultiIndex):
        df.columns = df.columns.droplevel(0)
    return df
```

```python
def drop_single_teams_if_multi_team_exists(df, player_col="Player", team_col="Tm"):
    """
    If a player has a multi-team row (Team in [2TM, 3TM, 4TM]),
    remove any single-team rows for that same player.
    This ensures we keep only the combined row for multi-team players.

    **Modified to keep only the first single-team row if multiple exist.**
    """
    if player_col not in df.columns or team_col not in df.columns:
        return df  # can't do anything if these columns don't exist

    # Group by player
    grouped = df.groupby(player_col)

    # Function to select rows
    def select_rows(g):
        mt_mask = g[team_col].isin(["2TM", "3TM", "4TM"])
        if mt_mask.any():
            return g[mt_mask]
        else:
            return g.iloc[[0]]  # Keep only the first single-team row

    return grouped.apply(select_rows).reset_index(drop=True)
```

```python
def keep_combined_multiteam_rows(df):
    """
    Keeps only multi-team rows ("2TM", "3TM", "4TM") if they exist for a player.
    Otherwise, keeps the single-team row.
    """
    def filter_group(g):
        mt_mask = g["Team"].isin(["2TM", "3TM", "4TM"])
        if mt_mask.any():
            return g[mt_mask]
        else:
            return g

    # To silence DeprecationWarnings, select only non-grouping columns
    return df.groupby("Player Name", group_keys=False).apply(filter_group).reset_index(drop=True)
```

```python
def pick_best_multiteam_row(df, stat_col="Rushing Attempts"):
    """
    From multi-team rows, picks the row with the highest value in the specified stat_col.
    """
    def filter_group(g):
        mt_mask = g["Team"].isin(["2TM", "3TM", "4TM"])
        multi_team_rows = g[mt_mask]
        if len(multi_team_rows) <= 1:
            return g
        else:
            # Pick the row with the maximum stat_col value
            best_mt_row = multi_team_rows.loc[multi_team_rows[stat_col].idxmax()]
            # Keep non-multi-team rows
            normal_rows = g[~mt_mask]
            # Combine normal rows with the best multi-team row
            return pd.concat([normal_rows, best_mt_row.to_frame().T], ignore_index=True)

    return df.groupby("Player Name", group_keys=False).apply(filter_group).reset_index(drop=True)
```

```python
def clean_names(names, reference_names):
    """
    Cleans and standardizes player names by removing suffixes and dynamically formatting initials.

    Parameters:
        names (list): List of player names to be cleaned.
        reference_names (set): Set of reference names to check for matches after cleaning.

    Returns:
        list: List of cleaned and standardized player names.
    """
    # Define a regex pattern to match unwanted suffixes
    pattern = r"( Jr\. 0| Sr\. 0| III 0| Jr\.| Sr\.| II 0| II| III| 0)$"

    # Remove suffixes
    cleaned_names = [re.sub(pattern, '', name) for name in names]

    def format_initials(name):
        """
        Adds periods between uppercase letters if they are initials (e.g., 'JK Dobbins' -> 'J.K. Dobbins').
        """
        return re.sub(r'\b([A-Z])([A-Z])\b', r'\1.\2.', name)

    for i in range(len(cleaned_names)):
        # Apply custom replacements for known mismatches
        if cleaned_names[i] == "Gabe Davis":
            cleaned_names[i] = "Gabriel Davis"
        elif cleaned_names[i] == "Joshiua Palmer":
            cleaned_names[i] = "Josh Palmer"
        else:
            # Dynamically format initials and check against reference names
            formatted_name = format_initials(cleaned_names[i])
            if formatted_name in reference_names:
                cleaned_names[i] = formatted_name

    return cleaned_names
```

Sample of Data Included

Below is a sample of the stats from the 2022 season – the final dataset will be 3x the width with stats for 2022, 2023, and 2024. The primary key of the dataset is 'Player Name' – this is the only column that is not repeated in the format "{year} {column name}".

Player Name	2022 Age	2022 Position	2022 Team	2022 Games Played	2022 Games Started	2022 Passing Attempts	2022 Passing Completions	2022 Passing Yards	2022 Passing Touchdowns	2022 Interceptions Thrown
Tom Brady	45	QB	TAM	17	17	733	490	4694	25	9
Justin Herbert	24	QB	LAC	17	17	699	477	4739	25	10
Patrick Mahomes	27	QB	KAN	17	17	648	435	5250	41	12
Kirk Cousins	34	QB	MIN	17	17	643	424	4547	29	14
Joe Burrow	26	QB	CIN	16	16	606	414	4475	35	12
Jared Goff	28	QB	DET	17	17	587	382	4438	29	7
Trevor Lawrence	23	QB	JAX	17	17	584	387	4113	25	8
Geno Smith	32	QB	SEA	17	17	572	399	4282	30	11
Josh Allen	26	QB	BUF	16	16	567	359	4283	35	14
Aaron Rodgers	39	QB	GNB	17	17	542	350	3695	26	12
Derek Carr	31	QB	LVR	15	15	502	305	3522	24	14
Russell Wilson	34	QB	DEN	15	15	483	292	3524	16	11
Davis Mills	24	QB	HOU	15	15	479	292	3118	17	15
Daniel Jones	25	QB	NYG	16	16	472	317	3205	15	5
Matt Ryan	37	QB	IND	12	12	461	309	3057	14	13
Jalen Hurts	24	QB	PHI	15	15	460	306	3701	22	6
Mac Jones	24	QB	NWE	14	14	442	288	2997	14	11
Tua Tagovailoa	24	QB	MIA	13	13	400	259	3548	25	8
Dak Prescott	29	QB	DAL	12	12	394	261	2860	23	15
Kyler Murray	25	QB	ARI	11	11	390	259	2368	14	7
Kenny Pickett	24	QB	PIT	13	12	389	245	2404	7	9
Andy Dalton	35	QB	NOR	14	14	378	252	2871	18	9
Jacoby Brissett	30	QB	CLE	16	11	369	236	2608	12	6
Baker Mayfield	27	QB	2TM	12	10	335	201	2163	10	8
Lamar Jackson	25	QB	BAL	12	12	326	203	2242	17	7
Ryan Tannehill	34	QB	TEN	12	12	325	212	2536	13	6
Justin Fields	23	QB	CHI	15	15	318	192	2242	17	11
Jimmy Garoppolo	31	QB	SFO	11	10	308	207	2437	16	4
Matthew Stafford	34	QB	LAR	9	9	303	206	2087	10	8

2022 Rushing Attempts	2022 Rushing Yards	2022 Rushing Touchdowns	2022 Targets	2022 Receptions	2022 Receiving Yards	2022 Receiving Touchdowns	2022 Fumbles
349	1538	13	41	33	398	0	6
340	1653	12	64	53	400	0	3
302	1525	12	37	27	239	1	1
295	1312	10	76	57	338	0	1
272	1034	7	53	41	229	3	3
264	1173	8	56	39	295	2	4
262	1066	17	16	12	73	0	3
259	1269	11	26	20	78	0	2
244	1139	8	108	85	741	5	1
231	876	12	23	17	92	0	0
228	1050	9	35	27	165	0	0
223	897	2	77	57	490	2	4
220	939	4	39	30	165	1	4
220	1125	5	45	35	316	0	5
213	1121	2	72	59	395	5	5
210	814	7	75	60	441	2	0
210	1040	5	88	69	421	1	4
210	1035	3	17	16	139	1	0
205	797	2	12	9	60	1	2
204	915	13	127	107	722	5	5
203	914	5	9	5	26	0	1
201	801	5	40	34	316	1	2
193	1007	9	55	39	371	3	0
192	861	4	40	28	143	0	3
189	668	3	83	73	523	3	0
188	786	7	18	13	117	0	2
186	770	7	43	28	206	0	1
183	782	7	58	46	300	1	3
181	891	3	42	31	202	2	1

2022 Field Goals Attempted 0-39	2022 Field Goals Made 0-39	2022 Field Goals Attempted 40-49	2022 Field Goals Made 40-49	2022 Field Goals Attempted 50+	2022 Field Goals Made 50+	2022 Field Goals Attempted	2022 Field Goals Made
25	24	6	4	6	6	37	34
24	24	5	4	14	9	43	37
20	20	4	3	13	11	37	34
19	18	14	13	2	2	35	33
19	18	13	10	3	2	35	30
19	18	11	7	2	2	32	27
19	17	12	12	7	2	38	31
18	18	7	6	4	1	29	25
18	18	14	10	5	4	37	32
17	14	8	6	7	4	32	24
17	17	4	4	9	7	30	28
17	15	11	10	3	2	31	27
17	15	8	4	6	4	31	23
16	16	10	9	11	7	37	32
15	15	8	7	10	4	33	26
15	15	11	9	11	6	37	30
15	14	2	1	6	5	23	20
15	14	10	9	6	6	31	29
14	14	7	6	11	9	32	29
14	14	7	7	1	0	22	21
14	13	10	8	6	4	30	25
14	13	11	9	3	2	28	24
13	10	10	10	13	8	36	28
13	12	11	9	12	9	36	30
13	12	13	12	6	2	32	26
12	11	11	10	9	8	32	29
12	11	5	4	7	3	24	18
11	11	7	6	5	4	23	21
11	10	13	9	5	5	29	24

2022 Extra Points Attempted	2022 Extra Points Made
42	41
32	31
36	35
32	30
37	36
51	50
25	24
39	37
35	32
37	35
32	31
50	48
33	33
35	33
46	40
29	28
53	51
24	24
53	50
24	24
28	24
33	33
27	25
21	21
44	41
34	32
41	38
32	27
44	40

2022 Total Yards Allowed	2022 Total Plays	2022 Takeaways	2022 First Downs Allowed	2022 Passing Yards Allowed	2022 Passing Touchdowns Allowed	2022 Rushing Yards Allowed	2022 Rushing Touchdowns Allowed	2022 Penalties Committed
6670	1076	22	377	4179	26	2491	22	103
6608	1118	25	359	4515	23	2093	18	111
6452	1134	27	372	3558	15	2894	25	95
6390	1043	23	361	3716	22	2674	31	84
6216	1077	13	360	4129	25	2087	20	93
6156	1082	17	351	3942	26	2214	15	100
6149	1117	25	347	3595	23	2554	21	98
6089	1078	19	370	3638	21	2451	16	111
6006	1106	27	350	4055	25	1951	14	90
5978	1100	20	339	4671	29	1307	9	115
5953	1103	17	346	3868	25	2085	17	105
5931	1075	20	363	3915	29	2016	21	94
5884	1002	24	318	3406	24	2478	17	80
5798	1049	22	331	3842	23	1956	12	82
5743	1086	14	336	3992	27	1751	15	84
5721	991	24	321	3349	22	2372	18	100
5678	1092	21	344	3569	25	2109	20	89
5631	1041	20	329	3336	20	2295	22	88
5617	1024	23	314	3779	29	1838	7	96
5613	1101	33	327	3415	23	2198	9	98
5579	1093	20	337	3756	33	1823	10	98
5513	1047	25	323	3947	20	1566	11	79
5513	1073	20	314	3461	29	2052	12	97
5474	1091	30	314	3681	28	1793	7	89
5440	1079	23	324	3574	20	1866	12	106
5371	996	24	295	3665	17	1706	12	100
5352	1076	14	319	3134	17	2218	14	92
5288	1093	16	310	3220	15	2068	14	90
5178	998	18	286	3252	26	1926	10	85

2022 Penalty Yards	2022 First Downs by Penalty	2022 Percent Drives Scored On	2022 Percent Drives Takeaway	2022 ST_Sacks	2022 ST_Interceptions	2022 ST_Fumble Recoveries	2022 ST_Forced Fumbles	2022 ST_Safeties
818	33	41.2	11.9	39	12	10	12	1
926	22	41.1	12	38	15	10	10	0
773	26	35.2	11.9	39	16	11	9	1
647	26	41.8	11.9	20	14	9	10	0
758	28	40.8	7.3	27	6	7	10	0
804	15	43.5	10	21	10	7	8	1
818	29	37.2	12.2	45	14	11	15	0
819	36	39.8	8.8	41	6	13	18	0
683	25	36.1	14.4	35	14	13	16	0
836	31	33.9	10.6	39	14	6	11	0
866	27	34.2	8.3	35	10	7	7	0
757	21	41.6	10.5	36	11	9	11	0
762	24	37.2	11.2	40	14	10	13	1
691	22	41	12.1	38	16	6	9	0
799	38	37.5	7.6	40	8	6	14	1
916	29	38.2	13.9	34	17	7	11	1
725	33	36	10.2	44	10	11	13	0
714	34	38.5	10.2	34	11	9	10	0
717	23	37.3	13	40	20	3	9	0
851	34	33.5	16.2	54	16	17	21	0
734	28	35.9	10.3	55	11	9	11	1
650	26	35.8	13.9	48	14	11	14	0
863	25	33	10.2	44	10	10	14	0
699	30	30.5	14.2	54	19	11	15	0
922	35	35.9	10.6	36	15	8	15	1
832	20	36.4	13.1	30	13	11	13	0
798	38	34.8	7.1	48	7	7	11	0
707	27	32.3	8.3	45	12	4	9	2
707	29	31.5	7.6	43	9	9	7	1

2022 ST_Special Teams Touchdown	2022 Fantasy Points From Point	2022 XP2	2022 ESPN ADP	2022 Sleeper ADP	2022 NFL ADP	2022 RTSports ADP	2022 Average ADP	2022 Positional ADP	2022 PPR Fantasy Points Score	2022 Standard Fantasy Points Score
2	-7		301	301	259	301	259	27	90	90
2	-4		222	301	203	247	224	21	96	96
1	-2		301	301	276	301	276	30	99	99
0	-12		301	301	223	272	247.5	24	54	54
3	-2		301	301	207	301	207	18	69	69
3	-2		301	301	301	301	301	301	73	73
2	-1		301	301	256	301	256	26	106	106
2	2		301	301	262	301	262	28	93	93
4	12		301	301	290	301	290	31	125	125
1	4		301	222	183	261	222	20	89	89
3	5		301	301	228	274	251	25	92	92
5	-10		301	301	191	276	233.5	23	96	96
1	1		150	129	120	196	148.8	9	97	97
1	6		161	106	87	162	129	5	94	94
3	2		158	220	104	195	169.3	13	90	90
3	7		100	146	130	194	142.5	8	109	109
3	-6		136	147	67	144	123.5	4	98	98
4	4		188	201	199	204	198	17	102	102
1	6		147	176	148	228	174.8	14	98	98
3	14		130	139	108	178	138.8	7	152	152
2	5		206	301	151	193	183.3	15	114	114
1	18		119	125	171	224	159.8	10	122	122
1	6		107	112	96	134	112.3	2	96	96
8	10		181	181	105	197	166	11	172	172
0	9		184	157	165	170	169	12	93	93
1	12		195	221	189	277	220.5	19	96	96
1	12		105	144	123	169	135.3	6	94	94
1	16		301	301	272	301	272	29	103	103
3	8		193	301	239	263	231.7	22	107	107

Table of Contributions

The table below identifies contributors to various sections of this document.

	Section	Writing	Editing
1	**Data Sources**	**Caleb, Thomas**	**Caleb, Thomas, Hashim, David**
2	**Data Pre-Processing**	**Hashim, Thomas**	**Caleb, Thomas, Hashim, David**
3	**Appendix**	**David, Thomas, Caleb**	**Caleb, Thomas, Hashim, David**