**Title: The Origins of Franchise Players**

Introduction

Some teams, such as the Dallas Cowboys, have an exceptional record of drafting Hall of Famers, All-Pros, and Pro-Bowlers. They have achieved this by making fewer blockbuster trades or relying on free agency to acquire key franchise players. This analysis examines the origins of some of the league’s most talented players and their connection to the Cowboys’ past draft strategies.

Objectives

The motivation for this research stems from Will McClay’s exceptional draft strategy for the Dallas Cowboys, which consistently selects highly valuable players throughout the draft. Over the past decade, the Cowboys have drafted 12 All-Pro selections (seven unique) and 24 Pro Bowl selections (13 unique), potentially including a few Hall of Famers. The Dallas Cowboys’ drafting prowess over the last decade (2015-2024 drafts) is evident in their ranking as the NFL leader in total snaps played (91,901) by homegrown players they drafted and retained on their own roster for the subsequent five years (through 2023). I want to see if there is a method to their ability to draft certain players at specific points in the draft and if those pattern present themselves in the data.

Modeling

I am going to use K-means clustering to find groups of predicting NFL players as bad, good, and elite. Where the good are where you will want to focus to help build a roster off of and elite to be the bell cows of the team. It will be using features like yards, receiving/rushing, drop rate/ fumbles, tackles, sacks, and some other position specific stats. Ill separate each by position.

Methodologies

I intend to utilize data from Drafts, combine events, and the NFL 100 to analyze position-based drafted players by round and determine their origins. Can the best players be identified who were not selected in the first round, and if so, how many do not originate from the first round? I aim to prepare all raw data to seek answers to my question.

The process I will undertake involves researching draft boards and data from pro-football-reference and the NFL website to obtain the necessary data. Subsequently, I will process the data to clean any missing information and facilitate its integration into visualization tools. Following this, I will create charts and tables that detail the positions drafted and the respective rounds. I intend to compare the percentages of NFL 100 players as a reference for identifying franchise-caliber players. The NFL 100 list is compiled annually before the start of the season, ranking the 100 best players.

Tools

* Python
* Pandas
* Matplot
* Seaborn

Expected Outcomes

* Identifying patterns in the best players and where they were drafted
* Find how the success rate of specific positions based on where they are drafted
* See if top franchise players can be picked later in the draft
* Find player positions that can be selected out of the first round that become franchise players.

Timeline

• Week 1: Data collection and preprocessing.

• Week 2: Implementation of the Apriori algorithm for frequent itemset mining.

• Week 3: Generation and evaluation of association rules.

• Week 4: Analysis of results and preparation of the final report.

References

Grok (xAI). (2025). Information on Dallas Cowboys draft statistics, Pro Bowl, All-Pro, and Hall of Fame players (2015–2024). Retrieved September 9, 2025, from conversational query with Grok, an artificial intelligence tool developed by xAI.

Pro-Football-Reference.com - Dallas Cowboys All-Time Draft History

Provides complete draft history, including player stats, Pro Bowl selections, All-Pro honors, and snap counts for homegrown players. Used for verifying totals like 91,901 snaps by drafted players over the last five years (through 2023 data).

Pro-Football-Reference.com - Dallas Cowboys All-Pros and Pro Bowlers

Detailed list of All-Pro and Pro Bowl selections by year and player, including Cowboys draftees like Micah Parsons (3 Pro Bowls, 2 First-Team All-Pros), CeeDee Lamb (4 Pro Bowls, 3 All-Pros), and Dak Prescott (3 Pro Bowls).

Wikipedia - Dallas Cowboys Draft History

Overview of draft selections from 2015–2024, including notes on standout players like Ezekiel Elliott (3 Pro Bowls) and potential Hall of Fame trajectories for recent picks. Updated through 2025.