NFL Analysis

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Tools we Used

- Tableau
- Jupyter Notebooks
  - Local server
- Python
  - Pandas
  - NumPy
  - matplotlib
- GitHub for collaboration
- Slack/Zoom for communication

What We Learned – Tableau

- Connecting to Multiple Data sets
- Interactive Visualizations
  - Box-and-whisker charts
  - Bar graphs
  - Treemaps
- Aggregates
- Easy learning curve

What We Learned – Python Libraries

- Virtualenv - Virtual Environment
  - Keep your machine clean
  - Avoid dependency issues
- NumPy - Data Manipulation
  - Scientific Computation functionalities
- Pandas - Data Manipulation
  - Rich data analysis tool
    - Data Frame
- Matplotlib - Visualization
  - 2D plotting library
- Steep learning curve

What We Learned – Jupyter Notebook

- Sharable
  - Integration with GitHub
- Visualization
  - Integration with matplotlib
- Kernel
  - Run various languages on the notebook
- Requires server setup
- Simple learning curve

Tableau vs. Jupyter

Tableau

- Drag-and-drop
- Quick to import data set
- Intuitive visualizations
- Variety of graphs
- Install and go

Jupyter

- Coding in various languages
- More fine-grain control
- Variety of libraries
- Restrictive visuals
- Requires a server setup

The Data Set

- NFL Draft Outcomes
  - A data set consisting of all the players drafted from 1985 until 2015
  - Column data includes..
    - Draft pick
    - University attended
    - Position played
    - Team drafted by
- NFL Statistics
  - Various data sets providing insight on multiple stats across the sport

Demo..