

| Subject                       | Type              | Description  | Link  | Spot (if applicable) |
|-------------------------------|-------------------|--|---|----------------------|
| R YouTube tutorial            | Data vs           | Baselined and score videos tutorial w/ code                        | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Baselined            |
| R YouTube tutorial            | Data vs           | Baselined and score heatmap videos tutorial w/ code                | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Baselined            |
| R YouTube tutorial            | Data vs           | How to properly level it, under data vs code                       | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Baselined            |
| R YouTube tutorial            | Data vs           | How to properly create and plot event square data vs code          | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Baselined            |
| R YouTube tutorial            | Data vs           | How to create a score heatmap in R                                 | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Score (both)         |
| NBA R tutorials               | Comprehensive     | Tutorials on various basketball related topics                     | <a href="https://github.com/tylerrkelly/nba">https://github.com/tylerrkelly/nba</a>                   | Baselined            |
| FCI class                     | Comprehensive     | FCI 2017 9th floor w/ assessment a variety of tutorials            | <a href="https://github.com/tylerrkelly/nba">https://github.com/tylerrkelly/nba</a>                   | Score (both)         |
| Stanford R tutorial           | Comprehensive     | Stanford's tutorial to scoring and using their data                | <a href="https://github.com/tylerrkelly/nba">https://github.com/tylerrkelly/nba</a>                   | Score (both)         |
| Washington State              | Comprehensive     | Stanford's tutorial to scoring and using their data                | <a href="https://github.com/tylerrkelly/nba">https://github.com/tylerrkelly/nba</a>                   | Score (both)         |
| R for NFL tutorials           | Comprehensive     | Various approaches on how R could be used to explore NFL data      | <a href="https://github.com/tylerrkelly/nba">https://github.com/tylerrkelly/nba</a>                   | NFL                  |
| R w/ Baseball                 | Comprehensive     | Introduction to R and RShiny using baseball data                   | <a href="https://github.com/tylerrkelly/nba">https://github.com/tylerrkelly/nba</a>                   | MLB                  |
| MyRname                       | Data manipulation | MyRname tutorial w/ example & assessment                           | <a href="https://github.com/tylerrkelly/nba">https://github.com/tylerrkelly/nba</a>                   |                      |
| ggr2 data                     | Data manipulation | Parag ggr2 data with practice and test                             | <a href="https://github.com/tylerrkelly/nba">https://github.com/tylerrkelly/nba</a>                   |                      |
| ggplot2                       | Data vs           | Walkthrough ggplot2 tutorial w/ code examples                      | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | ggplot2              |
| ggplot2                       | Data vs           | GitHub repository for pretty much all ggplot packages known to man | <a href="https://github.com/tylerrkelly/nba">https://github.com/tylerrkelly/nba</a>                   | ggplot2              |
| ggplot2                       | Data vs           | Full breakdown on customizing data with "themes"                   | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | ggplot2              |
| ggplot2                       | Data vs           | Customizing graphs (color, fill, etc)                              | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | ggplot2              |
| R graph collection            | Data vs           | Reproducible tutorials focused on MyRname and ggplot2 (RGL)        | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> |                      |
| ggr2 tutorials                | Data vs           | Links to tutorials on charts in cases of things you're unsure      | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> |                      |
| ggr2 notes                    | Data vs           | Thomas Mack's blog tutorial for creating ggr2 notes                | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> |                      |
| data vs                       | Data vs           | Book that covers complete process of data visualization            | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> |                      |
| order plots                   | Data vs           | Focuses on order data but can be applied to anything               | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Score (both)         |
| heatmap tutorial              | Data vs           | Thomas Mack's blog tutorial for creating heatmaps                  | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> |                      |
| shuf charts                   | Data vs           | Tutorial on creating a variety of shuf charts                      | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Baselined            |
| geom_smooth                   | Data vs           | Tutorial for generating geom_smooth charts w/ code                 | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Score (both)         |
| ggplot2 tutorials             | Data vs           | Several guides to plotting score data with ggplot2 package         | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Score (both)         |
| NBA plot charts               | Data vs           | Tutorials to create NBA plot charts w/ code                        | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Baselined            |
| Score data vs                 | Data vs           | GitHub repo with code to generate NBA plot and modeling            | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Score (both)         |
| creating basketball reference | Scraping          | Walkthrough to scrape basketball reference tables                  | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Baselined            |
| creating basketball reference | Scraping          | Walkthrough to scrape basketball reference tables                  | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> | Baselined            |
| next web scraping             | Scraping          | YouTube tutorial on web scraping with next                         | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> |                      |
| next web scraping             | Scraping          | Blog post about creating a scraper with next                       | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> |                      |
| shiny apps                    | Shiny Apps        | Extensive tutorial with 7 hours full of examples & code            | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> |                      |
| shiny tutorials w/ videos     | Shiny Apps        | Tutorials & guide instructions for new shiny users                 | <a href="https://www.youtube.com/watch?v=6C555vU1t4E">https://www.youtube.com/watch?v=6C555vU1t4E</a> |                      |

# Guide to Sports Analytics

## Introduction

- [Hello there!](#) Welcome to a [comprehensive guide](#) to sports analytics that I've put together over the past few years.
- Here, you'll find an extensive list of coding tutorials, sports analysts to follow, books/blogs, web apps, research papers, & more!
- Most importantly, none of this would be possible without the public work of all the great sports analysts out there! [Nearly 99%](#) of everything listed has been [produced by others](#), so in no way do I claim it as my own. The SA community is incredible!
- The goal of this is to [showcase](#) the best work, coding tutorials, and overall learning materials in order to [lower the barrier to entry](#) for those that are interested in the sports analytics field!
- Feel free to follow myself (@DSamangy) and those listed throughout on Twitter. Always open to answering any questions!
- As of now, the guide covers the following [four](#) analytical softwares:
  - [R](#): an open-source programming language that is widely used as a statistical software, graphics, data analysis tool.
  - [Python](#): a computer programming language used to build websites, software, automate tasks, & conduct data analysis.
  - [Tableau](#): a leading data visualization tool used for data analysis and business intelligence.
  - [SQL](#): a computer language for storing, manipulating and retrieving data stored in a relational database.

## About Me

### Dominic Samangy

- I'm currently a graduate assistant coach & data analyst for the Arkansas Men's Basketball program where I integrate analytical approaches to optimize the decision-making process in areas such as game preparation, opponent scouting, player development, and more. During this time, I will also be pursuing a master's degree in statistics & analytics.

- Outside of my job, I work with several NBA trainers, players, and agencies. I've also partaken in research projects & competitions. In April 2022, I led a group of undergraduate classmates as we won the Milwaukee Bucks' inaugural basketball analytics hackathon. I've also presented co-authored research at the MIT Sloan Sports Analytics Conference, the Carnegie Mellon Sports Analytics Conference, the Midwest Analytics Conference, and the 8th Western Football and Finance Conference in London.

Twitter: [@DSamangy](#)  
YouTube: [@domsamangy](#)  
GitHub: [DomSamangy](#)



| Account            | Description   | Link                               | Spot                |
|--------------------|---|------------------------------------|---------------------|
| @Gerrity           | Data vs. shiny apps, shiny video breakdowns             | <a href="#">@Gerrity</a>           | Baseball            |
| @CompletLump       | Data vs. shiny apps                                     | <a href="#">@CompletLump</a>       | Baseball            |
| @swayoffits        | Data vs. r-shiny <a href="#">(via @CalebMc)</a>         | <a href="#">@swayoffits</a>        | Baseball            |
| @swatcarlot        | Data vs. shiny apps                                     | <a href="#">@swatcarlot</a>        | Baseball            |
| @patt7             | Data vs. shiny app, tutorials                           | <a href="#">@patt7</a>             | Baseball            |
| @roper730          | Data vs. r-shiny app package, tutorials                 | <a href="#">@roper730</a>          | Baseball            |
| @swame             | Data vs. <a href="#">https://www.shinyapps.com/blog</a> | <a href="#">@swame</a>             | Baseball            |
| @jrv_silverman     | Data vs. shiny apps                                     | <a href="#">@jrv_silverman</a>     | Baseball            |
| @vaz_jarvis        | Data vs. shiny apps                                     | <a href="#">@vaz_jarvis</a>        | Baseball            |
| @mlabshams         | Shiny apps, data vs. tutorials                          | <a href="#">@mlabshams</a>         | Baseball            |
| @The_MIA           | NBA & NCAA consulting, data vs. apps                    | <a href="#">@The_MIA</a>           | Baseball            |
| @swenClare         | Data packages, data vs                                  | <a href="#">@swenClare</a>         | Baseball/football   |
| @pollymerman       | Baseball shiny apps (Cushman Baseball)                  | <a href="#">@pollymerman</a>       | Baseball            |
| @shofarcor         | Baseball data packages                                  | <a href="#">@shofarcor</a>         | Baseball            |
| @swamy             | Comprehensive CSS analysis app                          | <a href="#">@swamy</a>             | Baseball            |
| @shak24            | Shiny baseball data vs                                  | <a href="#">@shak24</a>            | Baseball            |
| @Mark_NBA          | Data vs. shiny apps                                     | <a href="#">@Mark_NBA</a>          | Baseball            |
| @Pivola            | Data vs. articles, tactics                              | <a href="#">@Pivola</a>            | Soccer (Football)   |
| @TroyFisher        | Data vs   | <a href="#">@TroyFisher</a>        | Soccer (Football)   |
| @VickyRedford      | Data vs. shiny apps                                     | <a href="#">@VickyRedford</a>      | Soccer (Football)   |
| @ChrisWaters       | Data vs   | <a href="#">@ChrisWaters17</a>     | Soccer (Football)   |
| @SamGillingberg182 | Data vs. shiny apps                                     | <a href="#">@SamGillingberg182</a> | Soccer (Football)   |
| @erikbyrumba       | Data vs   | <a href="#">@erikbyrumba</a>       | Soccer (Football)   |
| @moucheur          | Data vs. tutorials                                      | <a href="#">@moucheur</a>          | Soccer (Football)   |
| @MehraAbha         | Data vs. shiny, soccer articles                         | <a href="#">@MehraAbha</a>         | Soccer (Football)   |
| @HectorHernandez   | Data vs. R lessons                                      | <a href="#">@HectorHernandez</a>   | Soccer (Football)   |
| @mehmet204         | Data vs. apply R package, tutorials                     | <a href="#">@mehmet204</a>         | Soccer (Football)   |
| @Jy_Rye            | Data vs. tutorials                                      | <a href="#">@Jy_Rye</a>            | Soccer (Football)   |
| @seers             | Data vs. R CREATORS of soccer/football                  | <a href="#">@seers</a>             | Soccer (Football)   |
| @shofarcor_1       | Data visualizations and services                        | <a href="#">@shofarcor_1</a>       | Soccer (Football)   |
| @swenator          | Very unique data visualizations and written analysis    | <a href="#">@swenator</a>          | Soccer (Football)   |
| @herbaltwin        | Data vs. packages, articles                             | <a href="#">@herbaltwin</a>        | NFL                 |
| @herbaltwin        | Data vs. football teams                                 | <a href="#">@herbaltwin</a>        | NFL                 |
| @mrsab             | Data vs. packages, live updates                         | <a href="#">@mrsab</a>             | NFL                 |
| @holic             | Data vs. shiny apps, packages                           | <a href="#">@holic</a>             | NFL/Basketball      |
| @Tucker_Tid        | Data vs. R packages, shiny apps                         | <a href="#">@Tucker_Tid</a>        | NFL/Hockey          |
| @EthanChapman      | Data vs. investigative articles (The Athletic)          | <a href="#">@EthanChapman</a>      | NFL                 |
| @pmpresearch       | Data vs. market research                                | <a href="#">@pmpresearch</a>       | College Football    |
| @PFF_Etc           | Data vs. PFF research, development, and strategy        | <a href="#">@PFF_Etc</a>           | NFL                 |
| @mlhughes41        | NFL data vs and package developer                       | <a href="#">@mlhughes41</a>        | NFL                 |
| @rhruder           | NFL and football data vs                                | <a href="#">@rhruder</a>           | NFL                 |
| @CodyGibbs         | College focused data account                            | <a href="#">@CodyGibbs</a>         | NFL                 |
| @kronin24          | Data vs. tutorials, blog                                | <a href="#">@kronin24</a>          | Baseball/Basketball |
| @herbert17         | Data vs. shiny apps                                     | <a href="#">@herbert17</a>         | Baseball            |
| @MiguelChayka      | Data vs and animations                                  | <a href="#">@MiguelChayka</a>      | Hockey              |
| @NedAtchew         | UFC data vs and UFC shiny app (see shiny app tab)       | <a href="#">@NedAtchew</a>         | UFC                 |
| @Thomas_muck       | Data vs. awesome blog (see tab)                         | <a href="#">@Thomas_muck</a>       | R Blogger           |

| Subject                       | Type                  | Description  | Link  | Sort of application | Code | Date  |
|-------------------------------|-----------------------|--|---|---------------------|------|---|
| YouTube Tutorial              | General Science       | 3 tips to getting started in sports analytics                                | <a href="https://www.youtube.com/watch?v=2014">https://www.youtube.com/watch?v=2014</a>   | ML Science          |      |   |
| Magisports official tutorial  | Data Viz              | In-depth Magisports guide. Beginner, intermediate, and advanced              | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | General Data Viz    |      |   |
| Magisports tutorial           | Data viz              | <b>MAGISPORTS</b> Magisports tutorial page w/ all plots                      | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | General Data Viz    |      |   |
| Blog series tutorial          | Pandas                | Notebook series to understanding Pandas                                      | <a href="https://github.com/robertvolz/pandas">https://github.com/robertvolz/pandas</a>   | General Data Viz    |      |   |
| Plot tutorial collection      | Data viz              | Reproducible data viz tutorials ( <b>BM3</b> )                               | <a href="https://www.kaggle.com/robertvolz/bm3">https://www.kaggle.com/robertvolz/bm3</a> | General Data Viz    |      |   |
| YouTube Tutorial              | Data viz              | How to create a scatter/heatmap plot in Python                               | <a href="https://www.youtube.com/watch?v=2014">https://www.youtube.com/watch?v=2014</a>   | Scatter (HeatMap)   |      |   |
| YouTube Tutorial              | Data viz              | How to create a scatter plot with size in Python                             | <a href="https://www.youtube.com/watch?v=2014">https://www.youtube.com/watch?v=2014</a>   | Scatter (HeatMap)   |      |   |
| YouTube Tutorial              | Data viz              | How to create scatter plots with hue in Python                               | <a href="https://www.youtube.com/watch?v=2014">https://www.youtube.com/watch?v=2014</a>   | Scatter (HeatMap)   |      |   |
| YouTube Tutorial              | Data viz              | How to create heatmap with size in Python                                    | <a href="https://www.youtube.com/watch?v=2014">https://www.youtube.com/watch?v=2014</a>   | Scatter (HeatMap)   |      |   |
| YouTube Tutorial              | Data viz              | How to create heatmap with hue in Python                                     | <a href="https://www.youtube.com/watch?v=2014">https://www.youtube.com/watch?v=2014</a>   | Scatter (HeatMap)   |      |   |
| YouTube Tutorial              | Data viz              | How to create scatter with size in Python                                    | <a href="https://www.youtube.com/watch?v=2014">https://www.youtube.com/watch?v=2014</a>   | Scatter (HeatMap)   |      |   |
| YouTube Tutorial              | Data viz              | How to get data from Plotly  | <a href="https://www.youtube.com/watch?v=2014">https://www.youtube.com/watch?v=2014</a>   | Scatter (HeatMap)   |      |   |
| F Python                      | Data Science & Viz    | Learn Python & Data Science with Football <b>MAGISPORTS</b>                  | <a href="https://magisports.com">https://magisports.com</a>                               | Scatter (HeatMap)   |      |   |
| Tracking data analysis        | Data Science          | Reading and writing with America's tracking and event data                   | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Scatter (HeatMap)   |      |   |
| YouTube Presentation          | Data viz              | Good practice in data visualization  | <a href="https://www.youtube.com/watch?v=2014">https://www.youtube.com/watch?v=2014</a>   | Scatter (HeatMap)   |      |   |
| Python blog post              | Data viz              | Football Data Visualizations - Passing Networks                              | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Scatter (HeatMap)   |      |   |
| YouTube Series                | Data Science          | LearnML/Tracking - code to working with soccer tracking data                 | <a href="https://github.com/robertvolz/learnml">https://github.com/robertvolz/learnml</a> | Scatter (HeatMap)   |      | <a href="https://github.com">https://github.com</a> |
| Friends of Tracking           | Data Science          | This series of videos covering <b>MAGISPORTS</b> aspects of soccer analytics | <a href="https://www.youtube.com/watch?v=2014">https://www.youtube.com/watch?v=2014</a>   | Scatter (HeatMap)   |      |   |
| Magisports soccer tutorials   | Data viz              | Code by step tutorials to analyzing soccer using soccer data                 | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Scatter (HeatMap)   |      |   |
| GitHub blog                   | Data Science          | Scatter: NBA tutorials in Python   | <a href="https://github.com/robertvolz/nba">https://github.com/robertvolz/nba</a>         | Basketball (NBA)    |      |   |
| GitHub blog                   | Data Science          | NBA Data processing tutorials  | <a href="https://github.com/robertvolz/nba">https://github.com/robertvolz/nba</a>         | Basketball (NBA)    |      |   |
| parade, magisports            | Data viz              | NBA single shot chart tutorial in Python                                     | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Basketball (NBA)    |      | part 1  |
| parade, magisports            | Data viz              | NBA heatmap shot chart tutorial in Python                                    | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Basketball (NBA)    |      | part 2  |
| parade, magisports            | Data viz              | NBA heatmap w/ color scales and shot tutorial in Python                      | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Basketball (NBA)    |      | part 3  |
| parade, magisports            | Data viz              | Intermediate NBA heatmap w/ color scales                                     | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Basketball (NBA)    |      | part 4  |
| parade, magisports            | Data viz              | NBA heatmap shot chart tutorial in Python                                    | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Basketball (NBA)    |      | part 1  |
| Basketball self-scraping      | Web scraping          | Web Scraping NBA Data With Python  | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Basketball (NBA)    |      | <a href="https://github.com">https://github.com</a> |
| Basketball data cleaning      | Data cleaning         | Cleaning NBA Data With Python And Pandas                                     | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Basketball (NBA)    |      | part 2  |
| Basketball ML                 | Machine learning      | Predicting the NBA MVP Machine Learning Project                              | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Basketball (NBA)    |      | <a href="https://github.com">https://github.com</a> |
| YouTube Tutorial              | Web scraping          | How to scrape NBA data using the nba_api package                             | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Basketball (NBA)    |      | part 3  |
| YouTube Tutorial              | Scraping & Data Viz   | Analyzing NBA Games with magisports and pandas                               | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Basketball (NBA)    |      |   |
| Blog tutorial                 | effortR               | Using effortR in python  | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | NFL                 |      |   |
| NFL data - beginner           | Blog series           | Learn Python with NFL Data - Next Gen Stats                                  | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | NFL                 |      | part 1  |
| NFL data - intermediate       | Blog series           | Learn Python with NFL Data - Next Gen Stats                                  | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | NFL                 |      | part 2  |
| NFL data - machine learning   | Blog series           | Learn Python with NFL Data - Next Gen Stats                                  | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | NFL                 |      | part 3  |
| NFL data - research           | Blog series           | Learn Python with NFL Data - Next Gen Stats                                  | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | NFL                 |      | part 4  |
| NFL data - homer breakdown    | Blog series           | Learn Python with NFL Data - Next Gen Stats                                  | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | NFL                 |      | part 5  |
| Modeling tutorial             | Blog tutorial         | How to predict NFL winners in python   | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | NFL                 |      |   |
| mlscrapr in python            | Data viz              | Introduction to working with mlscrapr data in Python                         | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | NFL                 |      |   |
| Data cleaning & visualization | Data tutorial         | NFL Pro Day Data   | <a href="https://github.com/robertvolz/nfl">https://github.com/robertvolz/nfl</a>         | NFL                 |      |   |
| Intro to basketball analytics | Data Science          | Basketball Analytics Pt. 1   | <a href="https://github.com/robertvolz/nfl">https://github.com/robertvolz/nfl</a>         | M&B                 |      |   |
| Intro to basketball analytics | Data Science          | Basketball Analytics Pt. 2   | <a href="https://github.com/robertvolz/nfl">https://github.com/robertvolz/nfl</a>         | M&B                 |      |   |
| Statcast data                 | Data collection & viz | This angle explains some of the statcast pitching dimensions and highlights  | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | M&B                 |      |   |
| Intro to Hockey in Python     | General Python        | Python Hockey Analytics Tutorial for Beginners                               | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Hockey              |      |   |
| Hockey blog series            | Data Science          | Comprehensive blog series with hockey ML/tutorials                           | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Hockey              |      |   |
| Statcast                      | Data viz              | Quick Tutorial on Statcast Analytics Using Hockey Data                       | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Hockey              |      |   |
| Using NFL data                | Data viz              | My adventure into understanding the NFL using data                           | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Hockey              |      |   |
| YouTube Tutorial              | Web Scraping          | Web Scraping With Python (Pt. 1: ETL)  | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Hockey              |      |   |
| NFL API Scraping              | Web scraping          | NFL API - Collect Career Stats   | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Hockey              |      |   |
| NFL API Scraping              | Web scraping          | NFL API - Collect Rosters  | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | Hockey              |      |   |
| statcast                      | Data viz              | Data visualization library based on magisports that provides a high-level    | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | General             |      |   |
| Python feedback               | Data Science          | Feedback covering more areas of python                                       | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | General             |      |   |
| Beautiful Soup                | Web scraping          | Beautiful Soup: Build a Web Scraper With Python                              | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | General             |      |   |
| Magisports tutorial           | Data viz              | A beginner's guide for Data Visualization and Exploration                    | <a href="https://www.magisports.com/learn">https://www.magisports.com/learn</a>           | General             |      |   |

| Package/Package                | Description   | Link  | Score                   |
|--------------------------------|---|---|-------------------------|
| PySportDataInterface           | One of the BEST Resourced Free links to packages in all sports in many languages                      | <a href="https://github.com/PySportDataInterface">https://github.com/PySportDataInterface</a>                     | All sports              |
| Sports database                | Open source sports data package for CFB, CFL, NBA, WNBA, CFL, NFL, and NHL.                           | <a href="https://github.com/PySportDataInterface">https://github.com/PySportDataInterface</a>                     | All sports              |
| baseballpy                     | Package to pull base stats provided for you easily using  | <a href="https://github.com/PySportDataInterface">https://github.com/PySportDataInterface</a>                     | All sports              |
| espnplay                       | Free Python API that pulls the data from www.espn.com   | <a href="https://github.com/PySportDataInterface">https://github.com/PySportDataInterface</a>                     | All sports              |
| espnreference                  | Free Python API that pulls the data from www.espn.com   | <a href="https://github.com/PySportDataInterface">https://github.com/PySportDataInterface</a>                     | All sports              |
| ivlball                        | Python API wrapper for stats.com with a focus on NBA and WNBA applications                            | <a href="https://github.com/ivlball">https://github.com/ivlball</a>   | Basketball (NBA & WNBA) |
| nba_api                        | An API client package to access the APIs for NBA.com  | <a href="https://github.com/nba-api">https://github.com/nba-api</a>   | Basketball (NBA)        |
| baseball_advanced_scraper      | Provides methods to scrape data from baseball-reference in pre-processed and simplified formats       | <a href="https://github.com/PySportDataInterface">https://github.com/PySportDataInterface</a>                     | Basketball (NFL)        |
| tennispy                       | Package that serves as a convenient web scraper for tennis  | <a href="https://github.com/tennispy">https://github.com/tennispy</a>   | Basketball (NFL)        |
| nba_scraper                    | Scrape the NBA's API and process the play by play of games either in a csv file or a pandas dataframe | <a href="https://github.com/nba-scraper">https://github.com/nba-scraper</a>                                       | Basketball (NFL)        |
| BasketballReference-WebScraper | A clean and easy to use NBA data web-scraper designed with Scrapy                                     | <a href="https://github.com/BasketballReference-WebScraper">https://github.com/BasketballReference-WebScraper</a> | Basketball (NFL)        |
| mlbscraper                     | Library for getting accurate/fraud-free stats in Major League and loading Baseball open data          | <a href="https://github.com/mlbscraper">https://github.com/mlbscraper</a>   | Score (Football)        |
| scraperspy                     | Package to easily scrape Baseball data via Python   | <a href="https://github.com/scraperspy">https://github.com/scraperspy</a>   | Score (Football)        |
| mlbpython                      | Package to retrieve MLB data  | <a href="https://github.com/mlbpython">https://github.com/mlbpython</a>   | Score (Football)        |
| scraperspy                     | Package to scrape MLB data via Python   | <a href="https://github.com/scraperspy">https://github.com/scraperspy</a>   | Score (Football)        |
| baseball_data_parser           | Convert baseball JSON data to csv format  | <a href="https://github.com/baseball_data_parser">https://github.com/baseball_data_parser</a>                     | Score (Football)        |
| scraping                       | Collects the code and models for our access to the analysis of all models                             | <a href="https://github.com/scraping">https://github.com/scraping</a>   | Score (Football)        |
| mlbpy                          | Package that addresses the challenges posed by the variety of data formats                            | <a href="https://github.com/mlbpy">https://github.com/mlbpy</a>   | Score (Football)        |
| ScrapingML                     | Python package to scrape several data sources (i.e., Crickets, Football, Golf, Cricket, and many)     | <a href="https://github.com/ScrapingML">https://github.com/ScrapingML</a>   | Score (Football)        |
| baseballscraper                | Python package from American Soccer Analysis allowing easy access to their API                        | <a href="https://github.com/baseballscraper">https://github.com/baseballscraper</a>                               | Score (Football)        |
| mlb_data_py                    | Library for interacting with NFL data sourced from nfl.com, nflapi, dynamoproces, and Draft Scout.    | <a href="https://github.com/mlb_data_py">https://github.com/mlb_data_py</a>                                       | NFL                     |
| nflgame                        | nflgame as an API to retrieve and read NFL's Game Center JSON data                                    | <a href="https://github.com/nflgame">https://github.com/nflgame</a>   | NFL                     |
| scrap                          | Turn player tracking data into beautiful, interactive visualizations                                  | <a href="https://github.com/scrap">https://github.com/scrap</a>   | NFL                     |
| nflapi                         | Python package for easily loading NFL play by play data via nflapi                                    | <a href="https://github.com/nflapi">https://github.com/nflapi</a>   | NFL                     |
| nfl                            | A library to retrieve and update NFL stats in a structured database                                   | <a href="https://github.com/nfl">https://github.com/nfl</a>   | NFL                     |
| pybaseball                     | Scrape Baseball Reference, Baseball Savant, and FanGraphs   | <a href="https://github.com/pybaseball">https://github.com/pybaseball</a>   | MLB                     |
| MLB-Data-API                   | Python wrapper for MLB Data API   | <a href="https://github.com/MLB-Data-API">https://github.com/MLB-Data-API</a>                                     | MLB                     |
| mlbgame                        | Python API to retrieve and read MLB GameDay data  | <a href="https://github.com/mlbgame">https://github.com/mlbgame</a>   | MLB                     |
| pybaseball                     | Python Baseball Data and Analysis   | <a href="https://github.com/pybaseball">https://github.com/pybaseball</a>   | MLB                     |
| mlbgamestat                    | Python package to collect baseball data quickly and easily  | <a href="https://github.com/mlbgamestat">https://github.com/mlbgamestat</a>                                       | NBA/Basketball          |
| hockey_nhl                     | A Python library for parsing hockey data with Major League  | <a href="https://github.com/hockey_nhl">https://github.com/hockey_nhl</a>   | Hockey                  |
| TopOverHockey_Scraper          | Scrape NHL play by play and EVM Prospects data  | <a href="https://github.com/TopOverHockey_Scraper">https://github.com/TopOverHockey_Scraper</a>                   | Hockey                  |
| mlbgame                        | API for accessing MLB game data including play by play, game summaries, player stats etc              | <a href="https://github.com/mlbgame">https://github.com/mlbgame</a>   | Hockey                  |
| Hockey_Scraper                 | Scrape NHL data via the NHL API and website   | <a href="https://github.com/Hockey_Scraper">https://github.com/Hockey_Scraper</a>                                 | Hockey                  |



| Website/Package     | Description   | URL   | Sport                      |
|---------------------|---|---|----------------------------|
| website w/ CSV file | Basketball Reference  | <a href="http://www.basketball-reference.com">http://www.basketball-reference.com</a>   | Basketball (NBA & NCAA)    |
| website             | NBA stats   | <a href="http://www.nba.com/stats/">http://www.nba.com/stats/</a>   | Basketball (NBA)           |
| CSV file            | NBA Shot Data for Year - (2015-2020) - EXTENSIVE                            | <a href="http://stats.nba.com/stats/shotclock?date=2015-2020">http://stats.nba.com/stats/shotclock?date=2015-2020</a>                               | Basketball (NBA)           |
| website             | SIDScraping   | <a href="http://www.sidscraping.com">http://www.sidscraping.com</a>   | Basketball (NBA)           |
| website             | PF4Golf NBA stats   | <a href="http://basketball.stats.com/pf4golf/">http://basketball.stats.com/pf4golf/</a>   | Basketball (NBA)           |
| dataset download    | Downloadable NBA dataset - EXTENSIVE  | <a href="http://www.kaggle.com/mahmoudeya/nba">http://www.kaggle.com/mahmoudeya/nba</a>   | Basketball (NBA)           |
| website             | StatsBomb.com   | <a href="http://www.statsbomb.com/">http://www.statsbomb.com/</a>   | Basketball (NCAA)          |
| website             | Basketball  | <a href="http://basketball.com">http://basketball.com</a>   | Basketball (NCAA)          |
| website             | Team Ratings (CSB website)  | <a href="http://www.teamratings.com/">http://www.teamratings.com/</a>   | Basketball (NCAA)          |
| website             | ESPN men's CSB stats  | <a href="http://www.espn.com/college/sports/basketball/mens">http://www.espn.com/college/sports/basketball/mens</a>                                 | Basketball (NCAA)          |
| website             | RealGM NCAA stats   | <a href="http://realgm.com/ncaa/">http://realgm.com/ncaa/</a>   | Basketball (NCAA)          |
| website             | Offensive CSB stats   | <a href="http://www.offensive.com/">http://www.offensive.com/</a>   | Basketball (CS League)     |
| website             | Basketball CS League stats  | <a href="http://basketball.csleague.com/">http://basketball.csleague.com/</a>   | Basketball (CS League)     |
| website             | RealGM International basketball stats                                       | <a href="http://realgm.com/international/">http://realgm.com/international/</a>   | Basketball (International) |
| website             | WNBA stats  | <a href="http://www.wnba.com/">http://www.wnba.com/</a>   | Women's Basketball (WNBA)  |
| website             | CSB women's CSB stats   | <a href="http://www.csb.com/women/csb-stats/">http://www.csb.com/women/csb-stats/</a>   | Women's Basketball (CSB)   |
| website             | Football Reference  | <a href="http://www.pro-football-reference.com/">http://www.pro-football-reference.com/</a>   | Soccer (Football)          |
| website             | WhoScored   | <a href="http://www.whoscored.com/">http://www.whoscored.com/</a>   | Soccer (Football)          |
| CSV file            | Standings open data - EXTENSIVE   | <a href="http://www.football-data.com/">http://www.football-data.com/</a>   | Soccer (Football)          |
| CSV file            | Metrics Sports Tracking data examples                                       | <a href="http://metricsports.com/">http://metricsports.com/</a>   | Soccer (Football)          |
| CSV file            | Historical tracking data collected by GoalCenter                            | <a href="http://www.goalcenter.com/">http://www.goalcenter.com/</a>   | Soccer (Football)          |
| data archive        | Archived Team By Team Final Statistics                                      | <a href="http://www.leagueoflegends.com/na/development/TeamFinalStatistics/">http://www.leagueoflegends.com/na/development/TeamFinalStatistics/</a> | Soccer (NCAA Men)          |
| data archive        | Archived Team By Team Final Statistics                                      | <a href="http://www.leagueoflegends.com/na/development/TeamFinalStatistics/">http://www.leagueoflegends.com/na/development/TeamFinalStatistics/</a> | Soccer (NCAA Women)        |
| data file           | 20+ matches, players & teams attributes for European Professional Football  | <a href="http://www.kaggle.com/kjorkin/european-football">http://www.kaggle.com/kjorkin/european-football</a>                                       | Soccer (EFL)               |
| website w/ CSV file | Scraper for any football data from several sources (Yahoo, ESPN, CBS, etc.) | <a href="http://www.pyfootball.com/">http://www.pyfootball.com/</a>   | NFL                        |
| website w/ CSV file | Package to scrape data from NFL API   | <a href="http://www.pyfootball.com/">http://www.pyfootball.com/</a>   | College Football           |
| CSV file            | Functions to scrape NFL play by play data                                   | <a href="http://www.pyfootball.com/">http://www.pyfootball.com/</a>   | NFL                        |
| CSV file            | College football field coverage   | <a href="http://www.pyfootball.com/">http://www.pyfootball.com/</a>   | NFL                        |
| dataset download    | Downloadable NFL dataset - EXTENSIVE  | <a href="http://www.kaggle.com/ricardoctezos/nfl">http://www.kaggle.com/ricardoctezos/nfl</a>   | NFL                        |
| website w/ CSV file | Baseball Reference  | <a href="http://www.baseball-reference.com/">http://www.baseball-reference.com/</a>   | MLS                        |
| website w/ CSV file | Baseball Score  | <a href="http://www.baseball-reference.com/">http://www.baseball-reference.com/</a>   | MLS                        |
| website             | Futurify  | <a href="http://www.futurify.com/">http://www.futurify.com/</a>   | MLS                        |
| CSV file            | Leagues' Database - EXTENSIVE   | <a href="http://www.leagues.org/">http://www.leagues.org/</a>   | MLS                        |
| dataset download    | Downloadable MLS dataset - EXTENSIVE  | <a href="http://www.kaggle.com/mehmetkoca/mls">http://www.kaggle.com/mehmetkoca/mls</a>   | MLS                        |
| website w/ CSV file | Hockey Reference  | <a href="http://www.hockey-reference.com/">http://www.hockey-reference.com/</a>   | Hockey                     |
| dataset download    | NHL player, team, season, and shot data - EXTENSIVE                         | <a href="http://www.kaggle.com/mhaskar/nhl">http://www.kaggle.com/mhaskar/nhl</a>   | Hockey                     |
| dataset download    | Downloadable NHL dataset - EXTENSIVE  | <a href="http://www.kaggle.com/mhaskar/nhl">http://www.kaggle.com/mhaskar/nhl</a>   | Hockey                     |
| CSV file            | Game, team, player and play information including x,y coordinates           | <a href="http://www.kaggle.com/mehmetkoca/nhl">http://www.kaggle.com/mehmetkoca/nhl</a>   | Hockey                     |
| website             | PGA Tour stats  | <a href="http://www.pgatour.com/stats.html">http://www.pgatour.com/stats.html</a>   | Golf                       |
| data file           | PGA Tour dataset from 2010-2018   | <a href="http://www.kaggle.com/pschmitt/pga-tour-data-2010-2018">http://www.kaggle.com/pschmitt/pga-tour-data-2010-2018</a>                         | Golf                       |
| dataset download    | Golf data from 2010-2022 - EXTENSIVE  | <a href="http://www.kaggle.com/mhaskar/pga-tour">http://www.kaggle.com/mhaskar/pga-tour</a>   | Golf                       |
| website w/ table    | Rugby stats by varying countries and their competitors                      | <a href="http://www.rugby.com/">http://www.rugby.com/</a>   | Rugby                      |



| Topic                     | Description  | Link  | Lang   |
|---------------------------|--|---|--------|
| ggplot2 cheat sheet       | Data visualization   | <a href="https://www.datarobot.com/blog/ggplot2-cheat-sheet/">https://www.datarobot.com/blog/ggplot2-cheat-sheet/</a>   | R      |
| Shiny apps cheat sheet    | Building apps  | <a href="https://www.datarobot.com/blog/shiny-apps-cheat-sheet/">https://www.datarobot.com/blog/shiny-apps-cheat-sheet/</a>   | R      |
| Tableware cheat sheet     | Transforming and visualizing data                          | <a href="https://www.datarobot.com/blog/tableware-cheat-sheet/">https://www.datarobot.com/blog/tableware-cheat-sheet/</a>   | R      |
| ObjR cheat sheet          | Data transformation  | <a href="https://www.datarobot.com/blog/objr-cheat-sheet/">https://www.datarobot.com/blog/objr-cheat-sheet/</a>   | R      |
| Tidy cheat sheet          | Data tidying   | <a href="https://www.datarobot.com/blog/tidy-cheat-sheet/">https://www.datarobot.com/blog/tidy-cheat-sheet/</a>   | R      |
| Lubridate cheat sheet     | Dates and times  | <a href="https://www.datarobot.com/blog/lubridate-cheat-sheet/">https://www.datarobot.com/blog/lubridate-cheat-sheet/</a>   | R      |
| Furrr cheat sheet         | Working with furrr   | <a href="https://www.datarobot.com/blog/furrr-cheat-sheet/">https://www.datarobot.com/blog/furrr-cheat-sheet/</a>   | R      |
| ICE cheat sheet           | Understanding R's working environment                      | <a href="https://www.datarobot.com/blog/ice-cheat-sheet/">https://www.datarobot.com/blog/ice-cheat-sheet/</a>   | R      |
| R Markdown cheat sheet    | Understanding R Markdown documents                         | <a href="https://www.datarobot.com/blog/r-markdown-cheat-sheet/">https://www.datarobot.com/blog/r-markdown-cheat-sheet/</a>   | R      |
| Reluctious cheat sheet    | Importing Python R through markdown documents              | <a href="https://www.datarobot.com/blog/reluctious-cheat-sheet/">https://www.datarobot.com/blog/reluctious-cheat-sheet/</a>   | R      |
| Revel cheat sheet         | Importing data with Reveal                                 | <a href="https://www.datarobot.com/blog/revel-cheat-sheet/">https://www.datarobot.com/blog/revel-cheat-sheet/</a>   | R      |
| Furrr cheat sheet         | Map functions  | <a href="https://www.datarobot.com/blog/furrr-cheat-sheet/">https://www.datarobot.com/blog/furrr-cheat-sheet/</a>   | R      |
| Shiny cheat sheet         | Shiny introduction   | <a href="https://www.datarobot.com/blog/shiny-cheat-sheet/">https://www.datarobot.com/blog/shiny-cheat-sheet/</a>   | R      |
| ggplot2 Paris cheat sheet | "Toolkit of the most commonly used ggplot2 theme elements" | <a href="https://www.datarobot.com/blog/ggplot2-paris-cheat-sheet/">https://www.datarobot.com/blog/ggplot2-paris-cheat-sheet/</a>                                       | R      |
| data viz                  | All color codes cheat sheet                                | <a href="https://www.datarobot.com/blog/data-viz-color-codes-cheat-sheet/">https://www.datarobot.com/blog/data-viz-color-codes-cheat-sheet/</a>                         | R      |
| ggplot2                   | Complete guide to scales                                   | <a href="https://www.datarobot.com/blog/ggplot2-complete-guide-to-scales/">https://www.datarobot.com/blog/ggplot2-complete-guide-to-scales/</a>                         | R      |
| Comprehensive guide       | Basic references for all levels of coders                  | <a href="https://www.datarobot.com/blog/comprehensive-guide/">https://www.datarobot.com/blog/comprehensive-guide/</a>   | Python |
| Pandas cheat sheet        | Data wrangling with pandas                                 | <a href="https://www.datarobot.com/blog/pandas-cheat-sheet/">https://www.datarobot.com/blog/pandas-cheat-sheet/</a>   | Python |
| Pandas cheat sheet 2      | Pandas basics cheat sheet                                  | <a href="https://www.datarobot.com/blog/pandas-basics-cheat-sheet/">https://www.datarobot.com/blog/pandas-basics-cheat-sheet/</a>                                       | Python |
| Matplotlib cheat sheet 1  | Visualizing data in Python part 1                          | <a href="https://www.datarobot.com/blog/matplotlib-visualizing-data-in-python-part-1/">https://www.datarobot.com/blog/matplotlib-visualizing-data-in-python-part-1/</a> | Python |
| Matplotlib cheat sheet 2  | Visualizing data in Python part 2                          | <a href="https://www.datarobot.com/blog/matplotlib-visualizing-data-in-python-part-2/">https://www.datarobot.com/blog/matplotlib-visualizing-data-in-python-part-2/</a> | Python |
| Matplotlib cheat sheet 3  | Matplotlib for beginners                                   | <a href="https://www.datarobot.com/blog/matplotlib-for-beginners/">https://www.datarobot.com/blog/matplotlib-for-beginners/</a>   | Python |
| Matplotlib cheat sheet 4  | Matplotlib for intermediate users                          | <a href="https://www.datarobot.com/blog/matplotlib-for-intermediate-users/">https://www.datarobot.com/blog/matplotlib-for-intermediate-users/</a>                       | Python |
| Matplotlib cheat sheet 5  | Matplotlib for experts                                     | <a href="https://www.datarobot.com/blog/matplotlib-for-experts/">https://www.datarobot.com/blog/matplotlib-for-experts/</a>   | Python |
| Seaborn cheat sheet       | Seaborn introduction                                       | <a href="https://www.datarobot.com/blog/seaborn-introduction/">https://www.datarobot.com/blog/seaborn-introduction/</a>   | Python |
| Plotly cheat sheet        | Plotly introduction  | <a href="https://www.datarobot.com/blog/plotly-introduction/">https://www.datarobot.com/blog/plotly-introduction/</a>   | Python |
| Data science cheat sheet  | Python for data science basics cheat sheet                 | <a href="https://www.datarobot.com/blog/python-for-data-science-basics-cheat-sheet/">https://www.datarobot.com/blog/python-for-data-science-basics-cheat-sheet/</a>     | Python |
| Data science cheat sheet  | Python syntax for data science                             | <a href="https://www.datarobot.com/blog/python-syntax-for-data-science/">https://www.datarobot.com/blog/python-syntax-for-data-science/</a>                             | Python |
| Data science cheat sheet  | Python intertable info for data science                    | <a href="https://www.datarobot.com/blog/python-intertable-info-for-data-science/">https://www.datarobot.com/blog/python-intertable-info-for-data-science/</a>           | Python |

| Author / Resource                            | Description   | Link  | Type             | Skill           |
|--|---|---|------------------|-----------------|
| Ben Alamar                                   | Sports Analytics: A Guide for Coaches, Managers, and Other Decision Makers              | <a href="https://www.amazon.com/2016-03-01">https://www.amazon.com/2016-03-01</a>     | Book             | Sport Analytics |
| William L. Wootton                           | Mathletics: How Coaches, Managers, and Sports Enthusiasts Use Mathematics in Baseball   | <a href="https://www.amazon.com/2010-05-17">https://www.amazon.com/2010-05-17</a>     | Book             | Sport Analytics |
| Tobias Mitchell & Luc Werhane                | Scorecasting: The Statistical Illusions Behind Our Sports And What They Mean For You    | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| Dean Oliver                                  | Basketball on Paper: Skills and Tools for Performance Analysis                          | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| Scott Paterson                               | The Midrange Theory   | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| Kim Goldberry                                | Baseball: A Visual Tour of the New Era of the MLB                                       | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| Ben Taylor                                   | Thinking Baseball   | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| Stephen Small & Christopher Baker            | Baseball Analytics: Statistics and Efficient Strategies for Understanding How Teams Win | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| Stephen Small                                | Baseball Analytics: Spatial Tracking  | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| David Suroy                                  | Sacramento: Mathematical Adventures in the Beautiful Game (Pre-Ed.)                     | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| Chicago Barnum                               | Football: The Science and Art of a Data Revolution                                      | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| Chris Anderson                               | The Football Game: Why Everything You Know About Soccer is Wrong                        | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| James Tjebk                                  | The Expected Goals Philosophy: A Game-Changing Way of Analyzing Football                | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| Simon Kuper                                  | Soccer Analytics  | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| Simon Kuper                                  | Soccer Analytics  | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | Sport Analytics |
| Michael Lewis                                | Moneyball: The Art of Winning an Unfair Game  | <a href="https://www.amazon.com/2003-04-01">https://www.amazon.com/2003-04-01</a>     | Book             | MLB             |
| Tom Tango, Michael Lombardi, Andrew Dethlefs | The Book: Playing The Revolution in Baseball  | <a href="https://www.amazon.com/2011-04-01">https://www.amazon.com/2011-04-01</a>     | Book             | MLB             |
| Rob Carroll, Dale Palmer, John Thorn         | The Hidden Game of Football   | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Book             | NFL             |
| David Fowler (Dereon FC)                     | Analyzing soccer analytics: introduction w/ python focus                                | <a href="https://www.youtube.com/watch?v=...">https://www.youtube.com/watch?v=...</a> | Resource/Guide   | Python          |
| Edo Heester                                  | Analytics: essential python guide to everyday sports analytics                          | <a href="https://www.amazon.com/2016-04-05">https://www.amazon.com/2016-04-05</a>     | Resource/Guide   | General         |
| Thomas Mock                                  | An R-focused blog with awesome tutorials on pretty much everything                      | <a href="https://www.thomasmock.nl/">https://www.thomasmock.nl/</a>                   | Blog             | R               |
| Chris Pridemore                              | An ongoing weekly ML newsletter full of insight & code examples                         | <a href="https://www.chrispridemore.com/">https://www.chrispridemore.com/</a>         | Blog             | R               |
| Team Color Codes                             | Hex, RGB, CMYK, and HSB color codes for any sports team                                 | <a href="https://www.teamcolorcodes.com/">https://www.teamcolorcodes.com/</a>         | Resource         | R               |
| ShaneFisher                                  | A personal website for tracking traditional events in sports                            | <a href="https://www.shanefisher.com/">https://www.shanefisher.com/</a>               | Resource/Tool    | R               |
| Soccer Event Tracker                         | Manual event tracker to create your own x-y match data                                  | <a href="https://www.soccerteam.com/">https://www.soccerteam.com/</a>                 | Resource/Tool    | R               |
| Nick Vary (Vary) @ Squaver                   | R code to scrape MLB's official daily injury reports (aka: Injuries)                    | <a href="https://www.squaver.com/">https://www.squaver.com/</a>                       | Source           | R               |
| Zach Brown                                   | Statistics in Sports Class, Fall 2020   | <a href="https://www.zachbrown.com/">https://www.zachbrown.com/</a>                   | Class Curriculum | Python          |
| Nigelman Hill                                | Blog covering mostly football, but also R statistics                                    | <a href="https://www.nigelmanhill.com/">https://www.nigelmanhill.com/</a>             | Blog             | R               |
| Imanol Gomez Schmidt                         | Personal portfolio that serves as blog showcasing soccer analytics projects             | <a href="https://www.imanolschmidt.com/">https://www.imanolschmidt.com/</a>           | Blog             | R               |
| R For Data Science                           | Visualize, model, transform, tidy, and export data                                      | <a href="https://r4ds.had.co.nz/">https://r4ds.had.co.nz/</a>                         | Book             | R               |
| R Programming for Data Science               | Learning the basics of R programming  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | R               |
| Functionalities of Data Visualization        | A Primer on Making Information and Compelling Figures                                   | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | R               |
| Interactive Web-based Data Viz               | Focuses on R, dplyr, and shiny  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | R               |
| Engineering Production-Grade Shiny Apps      | Guide through the process of building shiny apps  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | R               |
| Hands-On Machine Learning with R             | Learn how to build and tune models  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | R               |
| R in Healthcare: The Definitive Guide        | Guide to learning how to utilize R in healthcare  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | R               |
| ggplot2                                      | Elegant Graphics for Data Analysis  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | R               |
| Marketing Shiny                              | Build interactive apps, reports & dashboards  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | R               |
| Python Data Science Handbook                 | COMING SOON! Guide to python  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | Python          |
| Automate the Boring Stuff with Python        | Learn how to automate code in Python  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | Python          |
| Think Python                                 | How to Think like a Computer Scientist  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | Python          |
| Think Stats                                  | Introduction to Probability and Statistics for Python programmers                       | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | Python          |
| Python for Everybody                         | Building Data Using Python 3  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | Python          |
| A Programmer's Guide to Data Mining          | How to mine data  | <a href="https://www.r4ds.had.co.nz/">https://www.r4ds.had.co.nz/</a>                 | Book             | Python          |

| Account                    | Description  | URL   | Topic                   |
|----------------------------|--|---|-------------------------|
| <a href="#">Basketball</a> | 2022 NBA Draft Key   | <a href="#">https://www.espn.com/nba/story/_/id/32444444/2022-nba-draft-key"&gt;https://www.espn.com/nba/story/_/id/32444444/2022-nba-draft-key</a>   | Basketball (NBA & NCAA) |
| <a href="#">Basketball</a> | NBA & NCAA Player Comparison or Similarity Scores / 2021 NBA Draft Consensus Board & Player Data | <a href="#">https://www.espn.com/nba/story/_/id/32444444/nba-ncaa-player-comparison"&gt;https://www.espn.com/nba/story/_/id/32444444/nba-ncaa-player-comparison</a>                                     | Basketball (NBA & NCAA) |
| <a href="#">Basketball</a> | Thomas Langford: Player Comparison or Similarity Scores  | <a href="#">https://www.espn.com/nba/story/_/id/32444444/thomas-langford-player-comparison"&gt;https://www.espn.com/nba/story/_/id/32444444/thomas-langford-player-comparison</a>                       | Player (Basketball)     |
| <a href="#">Basketball</a> | NBA Under League Order   | <a href="#">https://www.espn.com/nba/story/_/id/32444444/nba-under-league-order"&gt;https://www.espn.com/nba/story/_/id/32444444/nba-under-league-order</a>   | Basketball (NBA)        |
| <a href="#">Basketball</a> | How NBA-Cut Training   | <a href="#">https://www.espn.com/nba/story/_/id/32444444/how-nba-cut-training"&gt;https://www.espn.com/nba/story/_/id/32444444/how-nba-cut-training</a>   | Basketball (NBA)        |
| <a href="#">Basketball</a> | NBA Cut-Ins and Injuries   | <a href="#">https://www.espn.com/nba/story/_/id/32444444/nba-cut-ins-and-injuries"&gt;https://www.espn.com/nba/story/_/id/32444444/nba-cut-ins-and-injuries</a>   | Basketball (NBA)        |
| <a href="#">Basketball</a> | Identifying NBA Stars in Europe  | <a href="#">https://www.espn.com/nba/story/_/id/32444444/identifying-nba-stars-in-europe"&gt;https://www.espn.com/nba/story/_/id/32444444/identifying-nba-stars-in-europe</a>                           | Basketball (NBA)        |
| <a href="#">Basketball</a> | NBA Player's Transfer Expectations   | <a href="#">https://www.espn.com/nba/story/_/id/32444444/nba-player-transfer-expectations"&gt;https://www.espn.com/nba/story/_/id/32444444/nba-player-transfer-expectations</a>                         | Basketball (NBA)        |
| <a href="#">Basketball</a> | <a href="#">ESPN.com</a> Lockdown Basketball: Better Big Game 2021                               | <a href="#">https://www.espn.com/nba/story/_/id/32444444/lockdown-basketball-better-big-game-2021"&gt;https://www.espn.com/nba/story/_/id/32444444/lockdown-basketball-better-big-game-2021</a>         | Basketball (NBA & NCAA) |
| <a href="#">Basketball</a> | Lockdown Basketball: Team Camps  | <a href="#">https://www.espn.com/nba/story/_/id/32444444/lockdown-basketball-team-camps"&gt;https://www.espn.com/nba/story/_/id/32444444/lockdown-basketball-team-camps</a>                             | Basketball (NBA)        |
| <a href="#">Basketball</a> | Star Making in Short Quarters  | <a href="#">https://www.espn.com/nba/story/_/id/32444444/star-making-in-short-quarters"&gt;https://www.espn.com/nba/story/_/id/32444444/star-making-in-short-quarters</a>                               | Basketball (NBA)        |
| <a href="#">Basketball</a> | How to Optimize Your NBA Week Schedule   | <a href="#">https://www.espn.com/nba/story/_/id/32444444/how-to-optimize-your-nba-week-schedule"&gt;https://www.espn.com/nba/story/_/id/32444444/how-to-optimize-your-nba-week-schedule</a>             | Basketball (NBA)        |
| <a href="#">Basketball</a> | COVID-19 Impact on Player Performance of NBA Players and Teams                                   | <a href="#">https://www.espn.com/nba/story/_/id/32444444/covid-19-impact-on-player-performance"&gt;https://www.espn.com/nba/story/_/id/32444444/covid-19-impact-on-player-performance</a>               | Basketball (NBA)        |
| <a href="#">Basketball</a> | CBSE analysis app that includes player ratings and several player/team analysis tools            | <a href="#">https://www.espn.com/nba/story/_/id/32444444/cbse-analysis-app"&gt;https://www.espn.com/nba/story/_/id/32444444/cbse-analysis-app</a>   | Basketball (NBA)        |
| <a href="#">Basketball</a> | Investigating the Hot Hand and Cold Streak   | <a href="#">https://www.espn.com/nba/story/_/id/32444444/investigating-the-hot-hand-and-cold-streak"&gt;https://www.espn.com/nba/story/_/id/32444444/investigating-the-hot-hand-and-cold-streak</a>     | Basketball (NBA)        |
| <a href="#">Basketball</a> | What is the Value of a NBA Coach's Challenge?  | <a href="#">https://www.espn.com/nba/story/_/id/32444444/what-is-the-value-of-a-nba-coach-s-challenge"&gt;https://www.espn.com/nba/story/_/id/32444444/what-is-the-value-of-a-nba-coach-s-challenge</a> | Basketball (NBA)        |
| <a href="#">Basketball</a> | Unleashing Guard and Bigman Synergies  | <a href="#">https://www.espn.com/nba/story/_/id/32444444/unleashing-guard-and-bigman-synergies"&gt;https://www.espn.com/nba/story/_/id/32444444/unleashing-guard-and-bigman-synergies</a>               | Basketball (NBA)        |
| <a href="#">Basketball</a> | Comprehensive app that rates all league profiles, age, group context, and more!                  | <a href="#">https://www.espn.com/nba/story/_/id/32444444/comprehensive-app"&gt;https://www.espn.com/nba/story/_/id/32444444/comprehensive-app</a>   | Player (Basketball)     |
| <a href="#">Basketball</a> | ALPHASO 2.0: App to streamline recruitment efforts for front offices                             | <a href="#">https://www.espn.com/nba/story/_/id/32444444/alphaso-2-0"&gt;https://www.espn.com/nba/story/_/id/32444444/alphaso-2-0</a>   | Player (Basketball)     |
| <a href="#">Basketball</a> | Player Training Overview app   | <a href="#">https://www.espn.com/nba/story/_/id/32444444/player-training-overview-app"&gt;https://www.espn.com/nba/story/_/id/32444444/player-training-overview-app</a>                                 | Player (Basketball)     |
| <a href="#">Basketball</a> | Football isn't played on spreadsheets  | <a href="#">https://www.espn.com/nba/story/_/id/32444444/football-isnt-played-on-spreadsheets"&gt;https://www.espn.com/nba/story/_/id/32444444/football-isnt-played-on-spreadsheets</a>                 | NFL                     |
| <a href="#">Basketball</a> | 2021 NFL Consensus Board   | <a href="#">https://www.espn.com/nba/story/_/id/32444444/2021-nfl-consensus-board"&gt;https://www.espn.com/nba/story/_/id/32444444/2021-nfl-consensus-board</a>   | NFL                     |
| <a href="#">Basketball</a> | UFC Fight Night Statistical Comparison   | <a href="#">https://www.espn.com/nba/story/_/id/32444444/ufc-fight-night-statistical-comparison"&gt;https://www.espn.com/nba/story/_/id/32444444/ufc-fight-night-statistical-comparison</a>             | UFC                     |



| Author/Type                       | Description   | Link  | Sport             |
|-----------------------------------|---|---|-------------------|
| <a href="#">Mikolajewski</a>      | R-Base Coaching in R: Repetitive and Practical Examples         | <a href="http://www.mikolajewski.com/teaching-r-base-coaching/">http://www.mikolajewski.com/teaching-r-base-coaching/</a>   | Not Sport Related |
| How Steve - Blog Tutorial         | Checking NBA Player Types                                       | <a href="http://www.stevetaylor.com/2014/07/07/2014-07-07-checking-nba-player-types/">http://www.stevetaylor.com/2014/07/07/2014-07-07-checking-nba-player-types/</a>   | Basketball (NBA)  |
| Georges Kurur - Blog Tutorial     | Predicting an NBA Player's Plus/Minus                           | <a href="http://www.georgeskurur.com/2014/07/07/2014-07-07-predicting-nba-player-plus-minus/">http://www.georgeskurur.com/2014/07/07/2014-07-07-predicting-nba-player-plus-minus/</a>   | Basketball (NBA)  |
| George Pyle                       | How to Build a Predictive Model for NBA Games                   | <a href="http://www.georgepyle.com/2014/07/07/2014-07-07-how-to-build-a-predictive-model-for-nba-games/">http://www.georgepyle.com/2014/07/07/2014-07-07-how-to-build-a-predictive-model-for-nba-games/</a>                                       | Basketball (NBA)  |
| Nico Yang                         | Predicting NBA players' salary using R                          | <a href="http://www.nicoyang.com/2014/07/07/2014-07-07-predicting-nba-players-salary-using-r/">http://www.nicoyang.com/2014/07/07/2014-07-07-predicting-nba-players-salary-using-r/</a>   | Basketball (NBA)  |
| Ian Ferguson                      | NBA Player Value Model  | <a href="http://www.ianferguson.com/2014/07/07/2014-07-07-nba-player-value-model/">http://www.ianferguson.com/2014/07/07/2014-07-07-nba-player-value-model/</a>   | Basketball (NBA)  |
| <a href="#">Bill Karim</a>        | Using R to Analyze the Chicago Bulls' Last Dance                | <a href="http://www.billkarim.com/2014/07/07/2014-07-07-using-r-to-analyze-the-chicago-bulls-last-dance/">http://www.billkarim.com/2014/07/07/2014-07-07-using-r-to-analyze-the-chicago-bulls-last-dance/</a>                                     | Basketball (NBA)  |
| <a href="#">@rstats</a>           | How to make a rmp quality model                                 | <a href="http://www.rstats.com/2014/07/07/2014-07-07-how-to-make-a-rmp-quality-model/">http://www.rstats.com/2014/07/07/2014-07-07-how-to-make-a-rmp-quality-model/</a>   | Basketball (NBA)  |
| <a href="#">Luka Segan</a>        | Linear Regression Analysis of NCAA Basketball Data              | <a href="http://www.lukasegan.com/2014/07/07/2014-07-07-linear-regression-analysis-of-ncaa-basketball-data/">http://www.lukasegan.com/2014/07/07/2014-07-07-linear-regression-analysis-of-ncaa-basketball-data/</a>                               | Basketball (NCAA) |
| <a href="#">Luka Segan</a>        | NCAA Hoops Model Methodology                                    | <a href="http://www.lukasegan.com/2014/07/07/2014-07-07-ncaa-hoops-model-methodology/">http://www.lukasegan.com/2014/07/07/2014-07-07-ncaa-hoops-model-methodology/</a>   | Basketball (NCAA) |
| George Pyle                       | How to Build a Predictive Soccer Model                          | <a href="http://www.georgepyle.com/2014/07/07/2014-07-07-how-to-build-a-predictive-soccer-model/">http://www.georgepyle.com/2014/07/07/2014-07-07-how-to-build-a-predictive-soccer-model/</a>   | Soccer (Football) |
| <a href="#">@georgepyle</a>       | ML Model: Design and Implementation with R: Topics              | <a href="http://www.georgepyle.com/2014/07/07/2014-07-07-ml-model-design-and-implementation-with-r-topics/">http://www.georgepyle.com/2014/07/07/2014-07-07-ml-model-design-and-implementation-with-r-topics/</a>                                 | Soccer (Football) |
| Blag Misral                       | Use of Package: Building an Expected Goals Model in R           | <a href="http://www.blagmisral.com/2014/07/07/2014-07-07-use-of-package-building-an-expected-goals-model-in-r/">http://www.blagmisral.com/2014/07/07/2014-07-07-use-of-package-building-an-expected-goals-model-in-r/</a>                         | Soccer (Football) |
| <a href="#">@blagmisral</a>       | An implementation of Goal-Draft's Expected Threat with R        | <a href="http://www.blagmisral.com/2014/07/07/2014-07-07-an-implementation-of-goal-drafts-expected-threat-with-r/">http://www.blagmisral.com/2014/07/07/2014-07-07-an-implementation-of-goal-drafts-expected-threat-with-r/</a>                   | Soccer (Football) |
| <a href="#">@blagmisral</a>       | Modeling the World Cup with Logistic                            | <a href="http://www.blagmisral.com/2014/07/07/2014-07-07-modeling-the-world-cup-with-logistic/">http://www.blagmisral.com/2014/07/07/2014-07-07-modeling-the-world-cup-with-logistic/</a>   | Soccer (Football) |
| <a href="#">@blagmisral</a>       | Predicting Football Results With Statistical Modeling           | <a href="http://www.blagmisral.com/2014/07/07/2014-07-07-predicting-football-results-with-statistical-modeling/">http://www.blagmisral.com/2014/07/07/2014-07-07-predicting-football-results-with-statistical-modeling/</a>                       | Soccer (Football) |
| Julie Sigafoos - YouTube Tutorial | Predictive modeling in R with tidyml and NFL attendance         | <a href="http://www.youtube.com/watch?v=7c123056150">http://www.youtube.com/watch?v=7c123056150</a>   | NFL               |
| <a href="#">@juliesigafoos</a>    | Linear Regression Models in R using NFL Game Data               | <a href="http://www.youtube.com/watch?v=7c123056150">http://www.youtube.com/watch?v=7c123056150</a>   | NFL               |
| <a href="#">@juliesigafoos</a>    | nfl98 EP, CP, AYAC, and other metrics                           | <a href="http://www.youtube.com/watch?v=7c123056150">http://www.youtube.com/watch?v=7c123056150</a>   | NFL               |
| <a href="#">@juliesigafoos</a>    | How to incorporate with through play by play                    | <a href="http://www.youtube.com/watch?v=7c123056150">http://www.youtube.com/watch?v=7c123056150</a>   | NFL               |
| Irish Willett                     | Learning R in R Studio: Predicting Baseball Winning Percentages | <a href="http://www.irishwillett.com/2014/07/07/2014-07-07-learning-r-in-r-studio-predicting-baseball-winning-percentages/">http://www.irishwillett.com/2014/07/07/2014-07-07-learning-r-in-r-studio-predicting-baseball-winning-percentages/</a> | MLB               |
| Jim Albert                        | Exploring Baseball Data With R                                  | <a href="http://www.jimalbert.com/2014/07/07/2014-07-07-exploring-baseball-data-with-r/">http://www.jimalbert.com/2014/07/07/2014-07-07-exploring-baseball-data-with-r/</a>   | MLB               |
| shiny post                        | Introduction to linear regression with MLB data                 | <a href="http://www.shiny-post.com/2014/07/07/2014-07-07-introduction-to-linear-regression-with-mlb-data/">http://www.shiny-post.com/2014/07/07/2014-07-07-introduction-to-linear-regression-with-mlb-data/</a>                                   | MLB               |
| <a href="#">@shinypost</a>        | Exploring Hockey Data With Hockey Data                          | <a href="http://www.shiny-post.com/2014/07/07/2014-07-07-exploring-hockey-data-with-hockey-data/">http://www.shiny-post.com/2014/07/07/2014-07-07-exploring-hockey-data-with-hockey-data/</a>   | Hockey            |
| <a href="#">@shinypost</a>        | ML: Expected Goals Model  | <a href="http://www.shiny-post.com/2014/07/07/2014-07-07-ml-expected-goals-model/">http://www.shiny-post.com/2014/07/07/2014-07-07-ml-expected-goals-model/</a>   | Hockey            |
| Alexander Tourn                   | Using R for Predictive Modeling - Stan: 10 Presentation         | <a href="http://www.alexandertourn.com/2014/07/07/2014-07-07-using-r-for-predictive-modeling-stan-10-presentation/">http://www.alexandertourn.com/2014/07/07/2014-07-07-using-r-for-predictive-modeling-stan-10-presentation/</a>                 | Hockey            |
|                                   |   |   | Golf              |
|                                   |   |   | Rugby             |