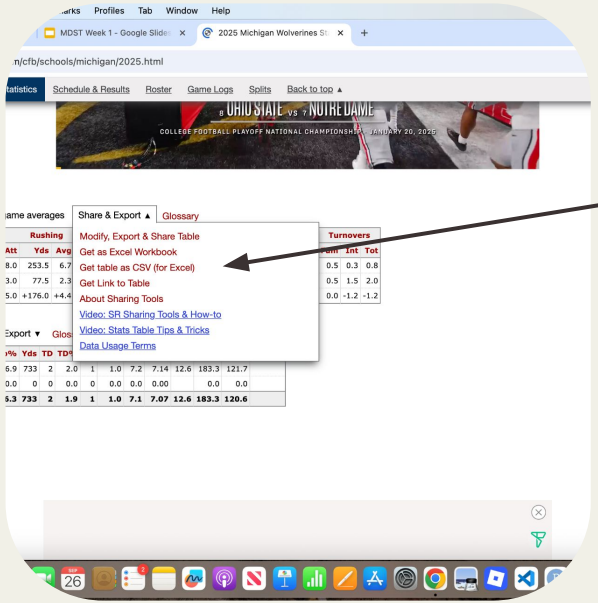
Sports Data Analysis

Week 2

Good Sources

- https://www.sports-reference.com/ (by far the best)
- fangraphs.com (just baseball)
- ESPN API
- Pro league APIs



Sports Reference Tip

For each table, click on “Share & Export” at the top and then “Get table as CSV (for Excel)”

From here, copy and paste the table into google sheets and then download it as a CSV

Sports Reference Cntd.

eam Stats Most values are per game averages Share & Export ▾ Glossary

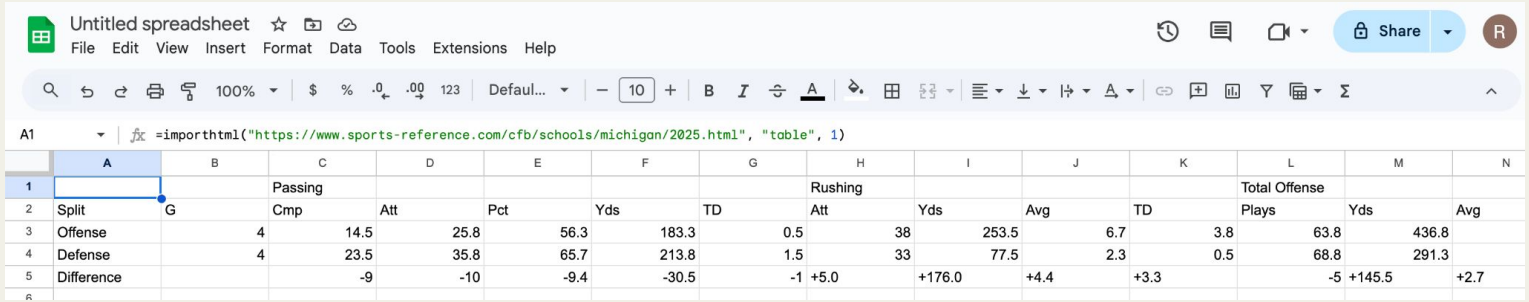
eload page to return to the table-formatted data.

-- When using SR data, please cite us and provide a link and/or a mention.

,Passing,Passing,Passing,Passing,Passing,Rushing,Rushing,Rushing,Rushing,Total Offense,Total Offense,Total Offense,First Downs,First Downs,First Downs,First Downs,Per
plit,G,Cmp,Att,Pct,Yds,TD,Att,Yds,Avg,TD,Plays,Yds,Avg,Pass,Rush,Pen,Tot,No.,Yds,Fum,Int,Tot
ffense,4,14.5,25.8,56.3,183.3,0.5,38.0,253.5,6.7,3.8,63.8,436.8,6.9,9.0,10.8,1.0,20.8,4.8,45.3,0.5,0.3,0.8
efense,4,23.5,35.8,65.7,213.8,1.5,33.0,77.5,2.3,0.5,68.8,291.3,4.2,10.5,5.5,2.5,18.5,2.5,17.0,0.5,1.5,2.0
ifference,,-9.0,-10.0,-9.4,-30.5,-1.0,+5.0,+176.0,+4.4,+3.3,-5.0,+145.5,+2.7,-1.5,+5.3,-1.5,+2.3,+2.3,+28.3,0.0,-1.2,-1.2

In the example from the previous slide, you would get this output and would copy the table underneath the “-- When using SR data…” into google sheets for saving as CSV

Other Scraping Tips



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1			Passing					Rushing				Total Offense		
2	Split	G	Cmp	Att	Pct	Yds	TD	Att	Yds	Avg	TD	Plays	Yds	Avg
3	Offense	4	14.5	25.8	56.3	183.3	0.5	38	253.5	6.7	3.8	63.8	436.8	
4	Defense	4	23.5	35.8	65.7	213.8	1.5	33	77.5	2.3	0.5	68.8	291.3	
5	Difference		-9	-10	-9.4	-30.5	-1	+5.0	+176.0	+4.4	+3.3	-5	+145.5	+2.7

In google sheets, use the function IMPORTHTML (seen above), with the usage:

=importhtml(“url”, “table”, index) where url must be in quotes and index is (I believe from my testing) the table you want in order top to bottom starting from 1

Another (harder) Way to Scrape

There is a Python library called BeautifulSoup that is built for webscraping data!

I have code that uses it in my github repository under each dataset's folder that you can use to model your own code after (but try the other options first!!): https://github.com/MichiganDataScienceTeam/F25-SportsDataAnalysis/tree/main/Data

Questions? Email me!

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