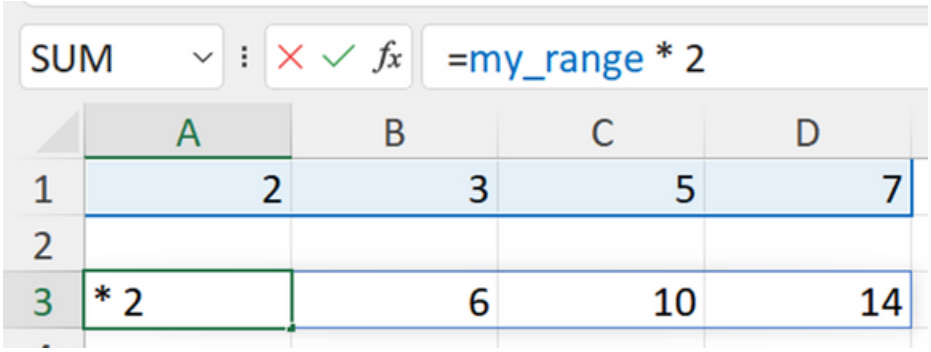
STRINGFEST ANALYTICS

"I WANT TO MULTIPLY A RANGE IN EXCEL, R AND PYTHON"

This is pretty simple in Excel and R: Simply multiply the range by two.



Use a named range to make the process even quicker in Excel

```
> my_range <- c(2, 3, 5, 7)
> my_range * 2
[1]  4  6 10 14
```

Use the c() function in R to *combine* these elements into a vector

By default, Python does this quite a bit differently than Excel or R:

```
In [1]: my_range = [2, 3, 5, 7]
        my_range * 2

Out[1]: [2, 3, 5, 7, 2, 3, 5, 7]
```

Passing this into the list object type doesn't get us quite what we might expect...

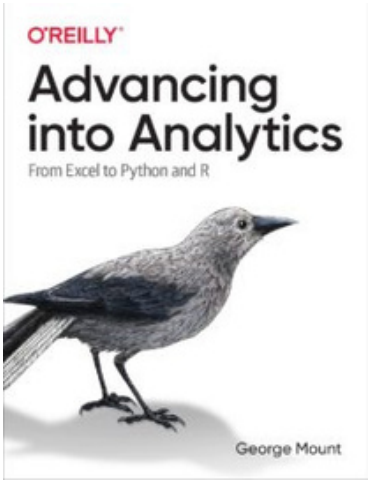
However, packages such as numpy exist to make Python behave much more like we'd expect for analyzing data:

```
In [2]: import numpy as np

        my_range = np.array([2, 3, 5, 7])
        my_range * 2

Out[2]: array([ 4,  6, 10, 14])
```

With the help of numpy we can get Python to work a lot more like R and Excel (Vectorization is the fancy word for this behavior)

Moral of the story: While Excel and R were designed primarily for data analysis and computation, Python was designed for more general computing.

That's not necessarily a problem, as a wealth of packages for Python has made it a favored tool among many data professionals.



Looking to get started with Excel, R and Python for data analysis? Check out my book *Advancing into Analytics: From Excel to Python and R.*

If you want to change the way your team uses data for reporting and analysis, starting with Excel, get in touch.