



Aspects of the Game at Golf's Four Majors

Amy Yu, Sunny Whang, Hilary Li

Overarching Question:

What aspect of golf was **prioritized** at major tournaments from 2008 - 2017?



Strokes Gained



Overview

Tee to Green

- Player's non putting performance against the rest of the field

Putting

- Player's putting performance against the rest of the field

Total

- $TTG + \text{Putting}$

How to Calculate

1. Find the putting benchmark
2. Subtract the number of putts a player made and the putts gained by the entire field relative to their putting benchmarks.

Example:

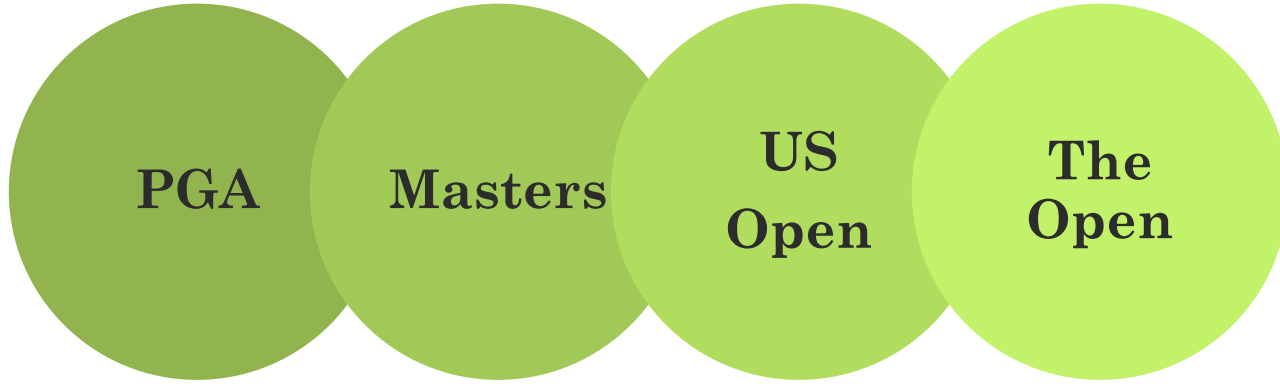
Putting benchmark: 3.7, one putt made

Gained a total of 2.7

The field lost an average of 0.4

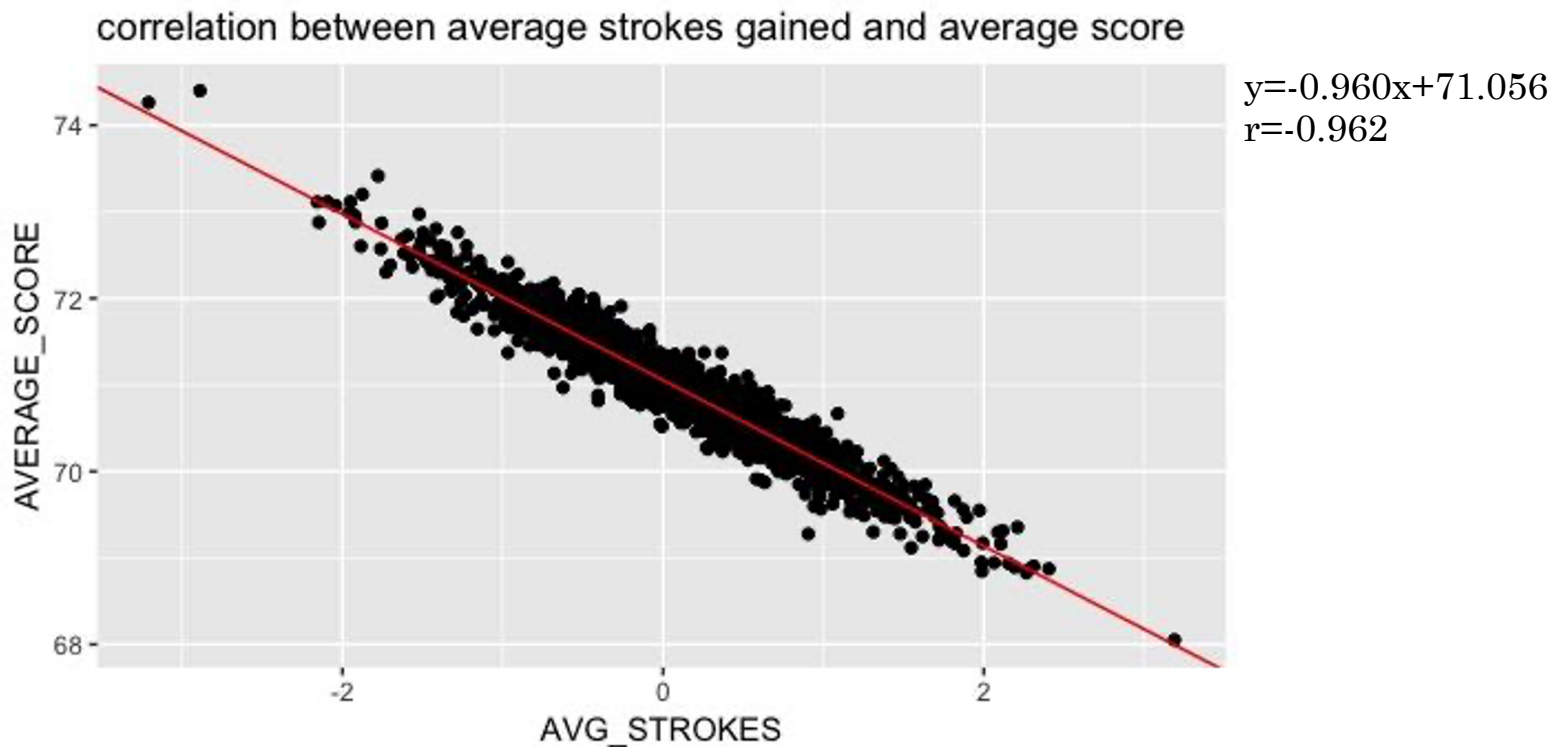
The player's strokes gained putting would be 3.1.

Collected data from the four largest golf tournaments:

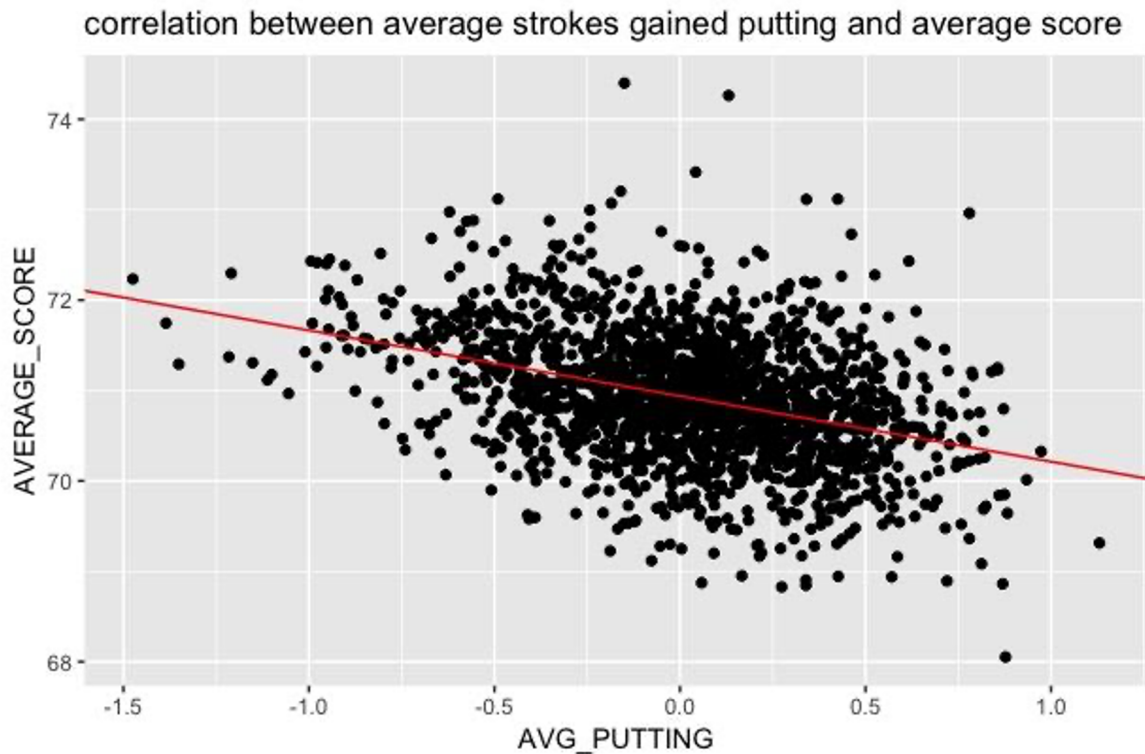


Context

Correlation Graph #1



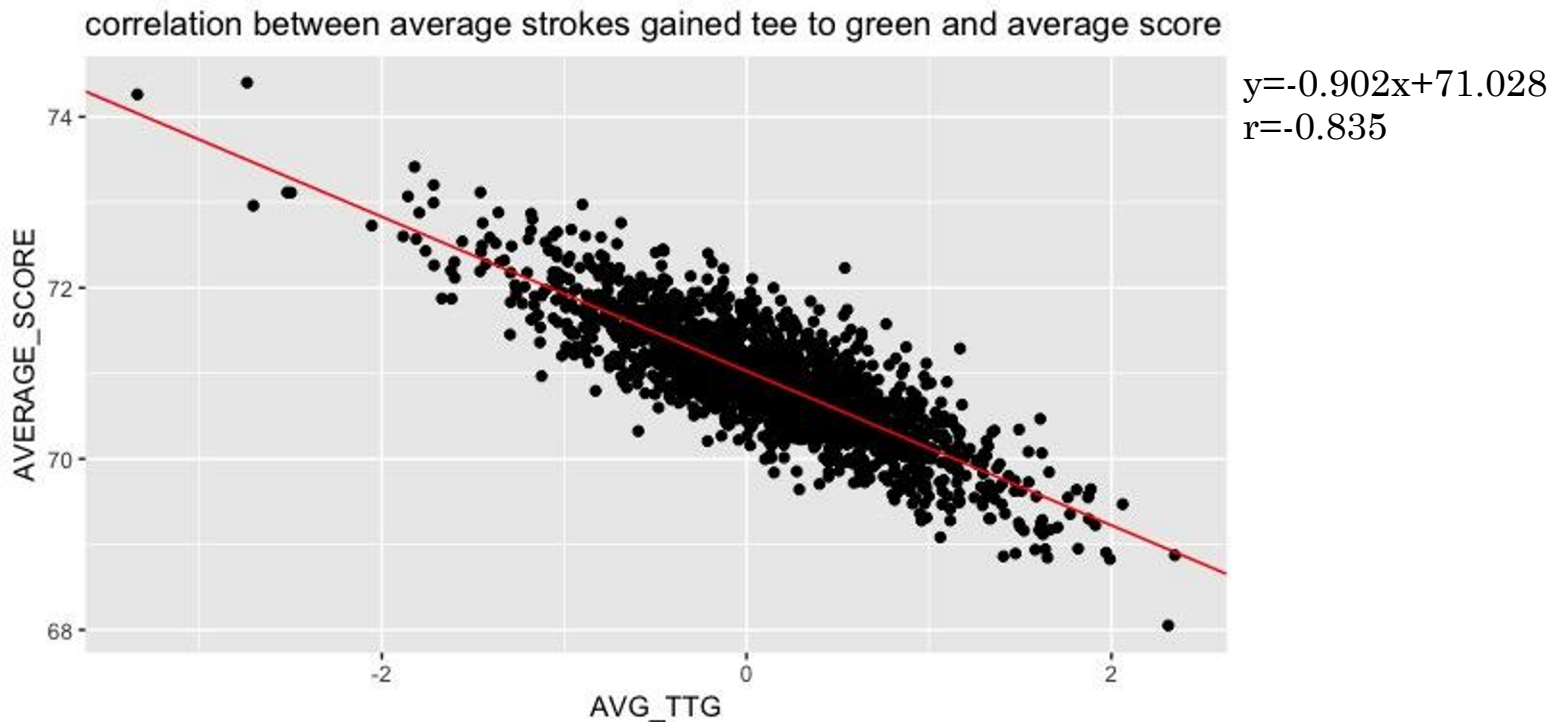
Correlation Graph #2



$$y = -0.726x + 70.939$$

$$r = -0.373$$

Correlation Graph #3



Correlation Graph Conclusions

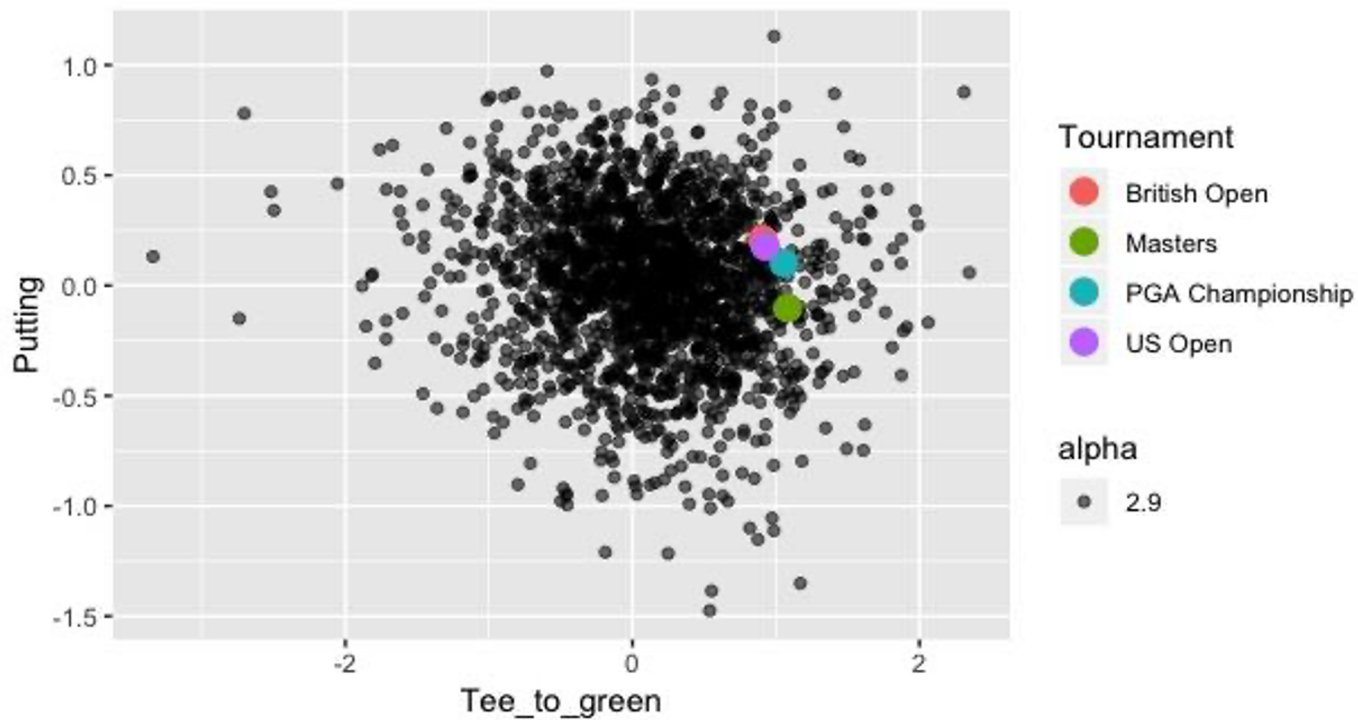
Conclusions we can make from these graphs:

- The more **putting** and **TTG** strokes gained, the **lower the average score** will be
- Tee to green has a higher correlation to average score than putting
- The **more strokes** gained, the **lower the average score** will be

Strong correlation between average score and strokes gained.

How does this data compare to results
from **major golf tournaments**?

correlation between average strokes gained putting and tee-to-green

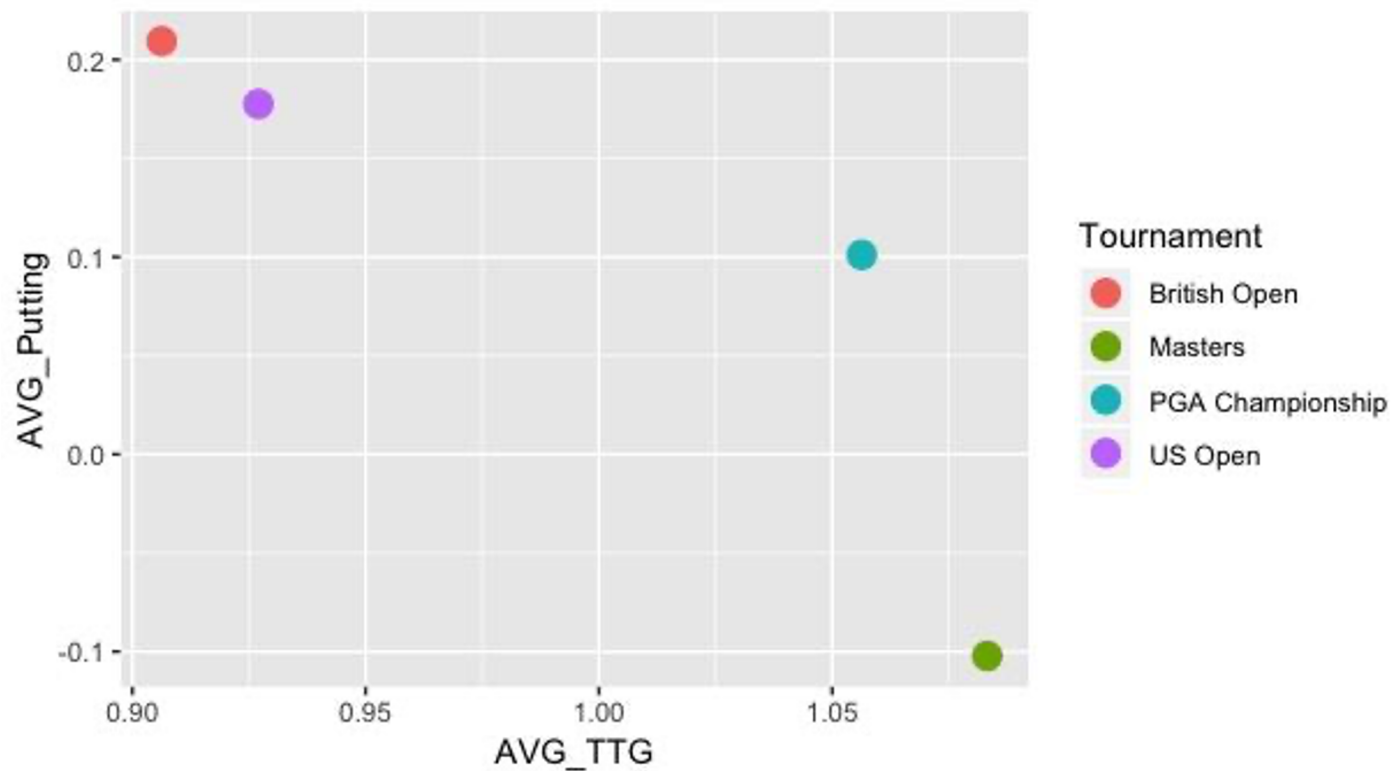


Graph Conclusion

Observations we can make about the graph:

- Golf stats have a high variance, but major champions have much less variance in their stats.
- All four points are on the edge of the cluster.

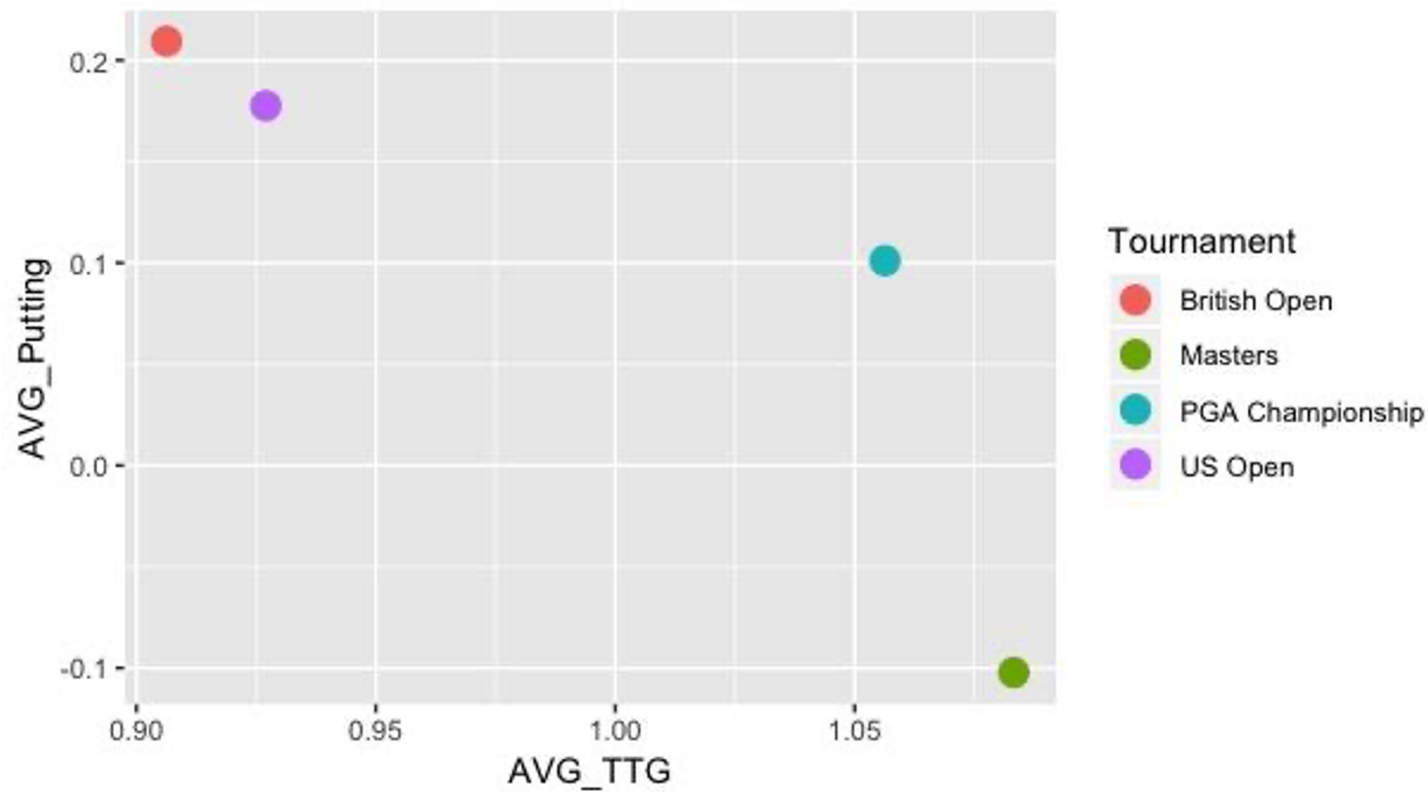
correlation between average strokes gained putting and tee-to-green



Data Table

Tournament	AVG Putting	AVG TTG	Average Score
British Open	0.209	0.906	69.6
Masters	-0.102	1.08	69.7
PGA Championship	0.101	1.06	69.6
US Open	0.178	0.927	69.6

correlation between average strokes gained putting and tee-to-green



Graph Conclusion

British Open

Putting is more important than it is at other majors, TTG is not as important.

Masters

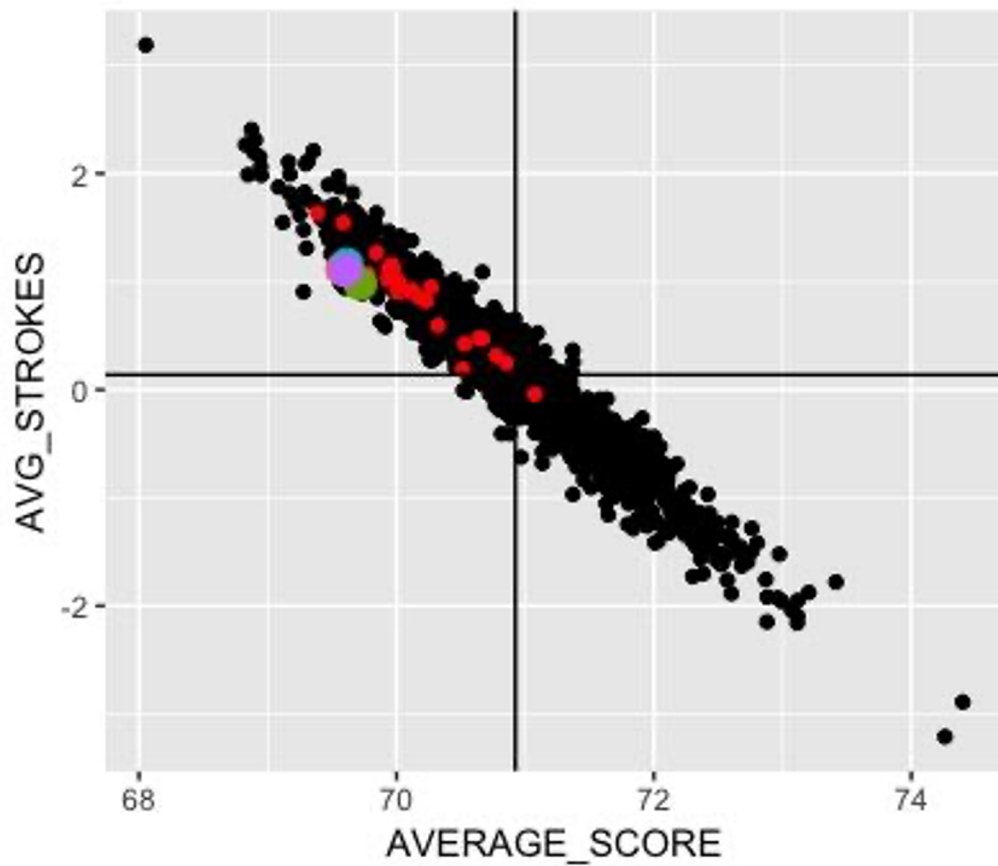
TTG is very important. Average strokes gained putting is negative.

PGA Championship

High average strokes gained TTG and Putting.

US Open

Putting is relatively more important than strokes gained TTG.



Tournament

- British Open
- Masters
- PGA Championship
- US Open

Graph Conclusion

Observations we can make about the graph:

Red Dots:

Winners of four major tournaments stats from 2008 to 2017.

Colored Four Dots:

Average stats from the winners of the four majors over the last ten years.

Graph Conclusion

So, does winning a golf tournament come down to luck?

WRONG!

Winners of major tournaments:

- Scattered above average.
- Tend to outperform average golf players.

Overall Conclusion

For major golf tournaments:

- Different aspects of golf are **prioritized** for different tournaments

If you want to improve as a golfer:

- Pay more attention on either Putting or TTG depending on what competition you compete in

Questions?

