Quant SC

Tuesday, March 9th

Brainteaser

You have two ropes, each of which takes 1 hour to burn. But either rope has different densities at different points, so there's no guarantee of consistency in the time it takes different sections within the rope to burn. How do you use these two ropes to measure 45 minutes?

Brainteaser Answer

Light both ends of the first rope and one end of the second. 30 minutes later, the first rope will be completely burned. At that moment, light the second rope at the other end. When it is burned out, the total time has been exactly 45 minutes.

More on Implementation

Logging, Debugging, and Plotting

self.Log(str)

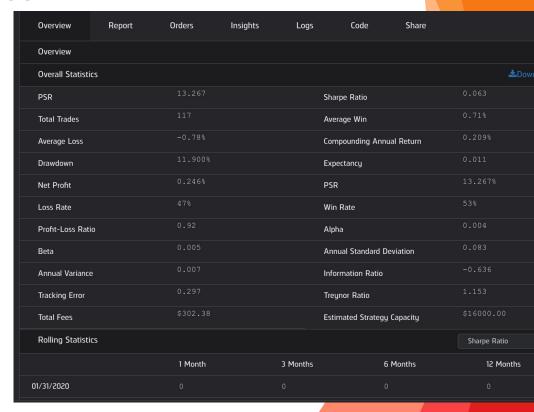
self.Debug(str)

self.Plot('Metric Name', metric)

Performance Metrics

- Sharpe ratio, probabilistic
 Sharpe ratio
- Alpha/beta
- Win/loss rates, average win/loss
- Drawdown
- Treynor ratio

Revenue : fees



Leverage

What is leverage Net exposure

UniverseSettings.Leverage

Benchmarks

- SetBenchmark()
- Tracking Error
- Information Ratio

Let's look at an algorithm!

Deliverables

- 1.) Finish preliminary research: document (on your GitHub readme) how you plan to generate signals, what you're generating signals on, etc.
- 2.) Begin structuring your code