Title: Long tetas!
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[https:\/\/whalewisdom.com\/stock\/gme](https://preview.redd.it/42ywv8b5pii71.png?width=944&format;=png&auto;=webp&s;=39b0382b77639d37cddc21808a7bf4d42355fa84)

Why am I excited about this?

A few people have already posted about it, but me being a math nerd, this makes me particularly excited and I'll explain why, although - with most of my posts, you're gonna get a history lesson, so get those crayons out and get ready to either snort them or write notes!

Treating the Stock Market as a Casino

This is true for Renaissance Technologies (Ren Tech) in the truest sense. A casino always has an edge over its players.

Take a slot machine for example:

A return to player is at an average of \~96%, this means if you walk in with $100, after a large number of spins, you'll be drained to $0 due to the 4% edge the casino has over you. In the long run, the casino will always win - also known as the law of large numbers, the average of the results obtained from a large number of trials (or spins in the case above), should be close to the expected value (the return to player of 96%).

The Medallion Fund

This particular fund, which is their most famous and profitable, beginning in 1988, after a rocky start, they hired a professor named [Elwyn Berlekamp](https://en.wikipedia.org/wiki/Elwyn_Berlekamp) which is where their returns started taking a turn for the better, consistently outperforming the market.

An average return of 71.8% annual return before fees from 1994 to mid-2014. Insane.

https://preview.redd.it/l5xx5pebpii71.png?width=898&format;=png&auto;=webp&s;=64e24a6fa19095b94f7950af259d93604f2ef076

Elwyn pretty much set the stone for Ren Tech's success, he rewrote their trading algos to focus on short-term trade with sizing based on the opportunity.

A Scientific Gambling Method

From this anecdotal talk about how Elwyn approached trading algorithms lies the comparison to our casino, but in the world of science instead. The Kelly Criterion. Which is a formula that helps determine the optimal theoretical size for a bet. It's commonly used with investment decisions, and if you have an edge on the casino, take advantage of it while optimizing your asset allocation! As Bob Mercer said, who was also employed at Ren Tech:

>We're right 50.75% of the time… but we're 100% right 50.75% of the time. You can make billions that

way.

The % referenced here was their ability to correctly predict the direction of medium/short term trades 50.75% of the time. Mercer and his colleagues built a system that modeled the relationship between stocks and then used this information to predict future bias in their price movement.

Back to the Main Story

Ren Tech has entered into a position with GME, owning it at some point in Q2 2021 and still likely owning in Q3 given that by 30th June 2021, we passed the initial June peak and were back down to the \~$213 mark.

I’m going to suggest they bought after the June run-up and subsequent run-down and I’ll explain why.

Back in 2015, old mate Jim Simons, the founder of Ren Tech was on a [TED Talk](https://www.youtube.com/watch?v=lji-jNsXmAM&t;=552s) \- I remember watching this video in the early days of GME, because hey, learn from the best, right?

GME is an Anomaly

Jim said in the Ted Talk:

>An anomaly might be a random thing, but given enough data you can tell it’s not. You can see an anomaly that’s persistent for a sufficiently long enough time, so that the probability of it being random is not high. But these things fade after a while, anomalies get washed out, so you gotta keep on top of those.

This was in 2015, so it does have some recency issues (left Ren Tech in 2009). However, him mentioning that jacks my tits. He was the first one to start using pattern analysis and ML when it came to trading commodities in the early days. The dude was an avid user of mean reversion as well, bringing it into popularity - and then the industry caught up, and then he hired lots of ultra-wrinkle brains to push the limits of mathematics and information theory further.

The main point I'm trying to make here and above is, they are GREAT at picking stocks that’ll make them money and it's all based on the data.

[Thanks u\/Broccaa for making this particular image and the Pomeraniape u\/Criand for discovering it ■](https://preview.redd.it/t7nhqz2ipii71.png?width=933&format;=png&auto;=webp&s;=a0a5cdc50e3923a20de9c4b82445132ebcf6bdf2)

Speculation Warning ■■■■

This brings me to what u/Criand has been speculating. I feel in my gut it’s correct, and given the information above, I also think Ren Tech has figured out something similar as well (although given vast amounts more data than we could ever dream of getting our hands-on).

To Ren Tech, the rollover period in Feb/March, where we saw the first spike after the Jan sneeze was a random anomaly, come the June spike and rollover period, I think that random anomaly turned into a not-so-random anomaly for them. So that leads me to my speculation that they bought after the June run-up when this random anomaly became a genuine market anomaly that they wanted to get a piece of the action.

Thank you for coming to my TED Talk. See you soon with some fun SEC market structure analysis.