

Liting Xiao

searches for patterns in financial markets

Quant researcher, Graham Capital Management

BA, astronomy–physics; BA, math;
University of Virginia, 2015

PhD, physics, California Institute of Technology, 2022

What was your PhD research focus?

Designing and improving statistical and computational methods for detecting and characterizing gravitational-wave signals from the LIGO–Virgo network. [LIGO is the US-based Laser Interferometer Gravitational-Wave Observatory; Virgo, its counterpart in Italy.]

What were you looking for in a job?

I was looking for a transition out of academia, something that would allow me to stay close to rigorous analytical work but with more tangible, real-world impact.

How did you make the switch?

I branded myself with a personal website and built out my LinkedIn profile. Recruiters reached out, and I applied to both big tech and financial firms. Within a month of intense interviewing, I landed a job. I chose GCM because I connected with my interviewers and with the company's data-driven research culture.

What do you like about your job?

What I enjoy most is the continuous learning: It keeps me intellectually engaged and connected to real-world events. I train myself to think critically about how global developments, like tariffs or geopolitical tensions, might ripple through inflation, commodity prices, and broader markets. I also really value the collaborative, intellectually curious culture.



(Photo by Xinghui Yan.)

How do you use your physics in your job?

It was not a huge leap. Instead of searching noisy data for black holes, I'm searching for patterns in markets to help decide when to buy or sell assets. The work is fast paced. We formulate ideas, validate them empirically, and subject them to internal peer review before iterating or discarding.

My PhD training gave me the mindset of an independent researcher and the tenacity to push through ambiguity. Both are essential for quant research. I had done a lot of signal processing, which translates well.

Have you needed new skills?

I've picked up, almost from zero, mathematical optimization skills. I also needed to build a foundation in finance, which I mostly taught myself. It took a few months to get fluent in the language of markets, and there's an expectation to ramp up quickly.

One major shift was the importance of networking. In industry, relationships and communication matter a lot. You need to put yourself out there and be visible. It's about building a network, exchanging ideas, and staying connected to the broader research community.