

Inside Citadel Securities' six-week-long training for newbie traders

By Emmalyse Brownstein

- **About 200 college grads joined Citadel and Citadel Securities this year.**
- **Before the Citadel Securities traders start work, they must undergo an intensive, 6-week training course.**
- **A recent MIT grad on the options desk broke down her daily routine.**

When starting most corporate jobs, you might get a few days of onboarding — a week, if you're lucky. In finance, a rookie mistake can literally cost a company millions, so training juniors can take extra time and diligence. But Citadel Securities, one of the biggest trading firms in the world, is taking this thoroughness to a new level by putting its newbie traders through six weeks of academic coursework, technical training modules, and mock-trading simulations before they're allowed to hit the desk.

Citadel, a hedge fund, and Citadel Securities, a market-making firm, were founded by billionaire Ken Griffin in 1990 and 2002. Over the last few decades, they have become some of the largest financial institutions in the world. They have also become a magnet for top talent, thanks to its work culture and generosity toward employees, like an all-expenses paid trip to Disney in 2022.

This work-hard, play-hard culture is evident in the



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CEO Peng Zhao responding to a question from a member of the new graduate class.

firms' training of new employees, including its most junior ranks. Every year, fresh-out-of-school hires are put through intense training before they can start their actual jobs. This year, there were more than 200 such new hires starting roles across the two firms in investing, quantitative research, engineering, trading, and enterprise.

In an effort to take readers inside the firm's intensive training program, Insider spoke to a new trader while she was going through the training, a senior options trader, and a director of the program. They explained why the program is so long, what it entails, and what an average day is like. They also described how Citadel's newest employees are exposed to the royal treatment Citadel has become known



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Ken Griffin.

for, including Midtown apartments for out-of-town trainees, catered meals, a trip to the New York Stock Exchange to ring the opening bell, and face-time with the firm's top leaders, including Griffin.

The program, which began in September just wrapped up at the end of October, gives the incoming traders "the basic building blocks and tools to come to Citadel Securities and be able to navigate the landscape of the business," said Pete Becker, director of Citadel Securities' early careers trading program. That means "understanding where institutional knowledge lives, what the different strategies are, how we pursue our role in the market, and then more holistically, we ask them to make a lot of decisions and choices that are very difficult without everything they need to make a complete perfect decision."

What the training and job entail

During the first week of the program, Citadel Securities' new hires from all divisions (quantitative research, technology, and trading) were together for educational sessions about things like ETF fundamentals, the anatomy of an exchange, and how to be a market maker. They were also treated to a fireside chat from Griffin, who talked about what it means to take ownership of your career, the risks of complacency, and taking risks not just in markets but with people. They also had a Q&A with Peng Zhao, the CEO of Citadel Securities, who touched on how to prioritize time and find ways to be a leader, among other topics.

From there, the format and length of the onboarding varies. Incoming traders receive the longest and perhaps most scrupulous training. They have lectures on topics like asset class fundamentals and do modules on data analysis and trading tools. They also spend hours coding and collaborating in small groups for a multi-stage mock trading competition that spans three weeks of the training.

The training program hasn't always been quite this in-

involved. It's Becker's fourth year running it, and one of the big changes in the last several years is that the training is led entirely by the firm's own full-time traders and employees — no outside, third-party training companies.

"We try to make sure that people aren't spending all of their time getting talked to. It's interactive, it's hands-on," Becker added.

One way they do this is by playing games after formal training sessions are done for the day, including poker and other turn-based trading games that help them with decision-making and strategy.

These games help managers get a better sense of their future talent. Joe DeNotta, who leads the options market-making team and is involved in the training, recalls being particularly impressed by Olivia Fan during the training session that ended earlier this month.

"She and others were playing a turn-based trading game in which each participant's decisions or choices could really change the strategy of the follower," explained DeNotta. "One of the interns that was upstream of Olivia made what I thought was a weak decision. In very short order, Olivia punished them for that decision, and she simultaneously made the decisions of the participants that were coming after her much more difficult."

When he asked her about the move, "she had an extremely concise but specific and exacting answer," DeNotta said. "That made it immediately clear to me that she was very confident and knew she had made the optimal decision, and she knew exactly why. This was something that we had just picked up. I found that interaction to be pretty impressive right away."

The games also act as a training opportunity, said DeNotta. "We like to take those moments as an opportunity to pause and discuss what happened, and make sure that the person who would've been in Olivia's seat was making the decision for the right reasons, that their process was sound, and also to coach the others about what had happened."



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Olivia Fan (right) and coworkers during the first week of new-hire training.



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Joe DeNotta (left) talking to trainees about Citadel Securities' options desk.

Why the training is so long

There are elements to the job of a trader that aren't necessarily intuitive, said Becker, even for Citadel's new hires, who tend to hail from top universities.

"We hire extremely talented, bright students out of school, but we need to appropriately leverage their abilities in order for them to become successful traders," he said. "There isn't a class at Harvard or MIT or other schools that covers trading."

Besides the more obvious qualities like reasoning, communication skills, and competitiveness, DeNotta added, their traders need to be collaborative, resourceful, and good at creative problem solving.

Many recent graduates also need to learn to fail.

"There is an element of resilience that's needed. We tell our people to embrace intellectual discomfort, and I encour-



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Pete Becker (right) coaching a new trader.

age them not to waste time and energy resisting the acceptance of a failure. This business will hand you failures — many of them — and that's a new thing for a lot of people that come here."

Becker said the technical training is important, but the bigger focus is teaching juniors to develop the mindset of a trader.

"We really focus on the decision-making process versus the specific outcome. We talk a lot about behavioral economics and decision biases," he said. "Rather than thinking, 'a trade I made money on was good, and a trade I lost money on was bad,' we want them to think about the process of the trade and the rationale for the decision."

The training also helps managers.

"Everybody is exceptionally talented, but they aren't all exceptionally talented in exactly the same ways," said DeNotta. "There are relative strengths and weaknesses within the class. We need to leverage that information to figure out how we put each individual in the best position to succeed. It's really about figuring out where they're likely to have the most impact the earliest in their career."

A Day in the Life

Fan, who studied math and computer science at MIT, walked Insider through a typical day of training at the market maker.

8:30 a.m.: Arrive at the office

"I usually take the subway to the office, and I arrive around 8:30. We spend about half an hour having breakfast, which is provided in the office, and catching up with the other people on how their previous days or weekends were."

9 a.m.: Education Session

"Starting at 9, we usually have some sort of education for an hour, depending on the day. Pete brings in different engineers or traders to give us lectures on topics such as asset classes or data science best practices or how the engineering side works."

10:30 a.m.: Mock Trading Competition Teamwork Practice

"After that, we're working on a team competition that was on a fake electronic exchange. We were put in groups of three, and we would spend pretty much the whole morning talking about what strategy we wanted to use, reviewing each other's code, and testing it, and doing practice service sessions."

Noon: Lunch

"We'll usually stop working around 12, eat for an hour,

and just chill for a bit. Lunch is provided by a catering company. They have a lot of good options. Usually, they'll have some sort of protein and a vegetarian main dish, a bunch of sandwiches, different desserts, tons of drinks. It's very convenient and pretty good."

1 p.m.: Data Visualization Session

"Around one we'll do data visualization where Pete and Andrew [who also leads the training curriculum] give us access to a lot of data for looking at things like risk and P&L across a bunch of different assets. And our job is, after being given this huge mountain of data, to figure out what we think is important, interpret it, and come up with graphs that can tell a story. We usually spend most of the afternoon doing that."

5 p.m.: After-Hours Training

"We'll then have a gaming session for mock trading with the full-timers after they finish their trading for the day. We've also played some poker for an hour or so, where we explain our decisions and get feedback on what they think about them."

For traders, the day generally begins around 8:30 a.m. and ends around 6:00 p.m. Nearly each day includes a combination of academic coursework, technical training modules,

and mock-trading simulations.

Fan lives in New York and will be based in Citadel Securities' Manhattan office. But out-of-town trainees are put up in their own apartments in Midtown until training is over, Becker said. They're not in the same building, but are all within a 10-15 walk to the training office (which is separate but within walking distance to Citadel's office), he added.

Fan says the training has helped her get acclimated.

"I came in feeling kind of nervous about starting a new job," Fan said. But the training has made her "feel more confident and more prepared than I did five weeks ago."

Even after the six weeks of training are over and done, the traders continue their education for several months, on the desk during the trading day and doing extra training either before or after market hours. They don't start trading actual company capital for about eight to 10 months after hitting the desk, he said.

"Our campus hires are too talented to come here and spend six months picking up the phone and doing shadows. I would be very disappointed if I found out that somebody spent a month sitting here feeling like they weren't being put to use," said DeNotta. "I want people to be appropriately challenged. And I think what that really means is at the threshold of intellectual discomfort — keeping these people at a spot where they're always feeling like they're right where they maybe shouldn't be taking on any more."