Quant SC 10/05



Brain Teaser

We are trying to optimize our daily commute to work from downtown to midtown.

There are two subway stations that you can choose from. At station A, trains come every 10 minutes (9:00, 9:10, 9:20, etc.). At station B, trains come in a repeated series of 5, 10, and 15 mins (9:00, 9:05, 9:15, 9:30, 9:35, etc.).

You can assume the stations are equidistant from your home and ride time is the same. Which station would you choose and why?

A:

Let's consider wait time—let A be the wait time for station A and B be the wait time for station B

E[A] = 5 mins

E[B] = 5 % mins

So we prefer station A. Does this make sense and match our intuitions?

Question of the Day

If a tomato is a fruit, is ketchup a smoothie?

Agenda

- 1. Logistics
- 2. Recruiting
- 3. Quant Share
- 4. Project Team Reveals

Logistics

To-do

- Quant SC x InnoD x Spark SC Tailgate
 - Saturday, October 9th, 12pm
 - 1158 W 28th St.
- Recruiting interest form
- Attendance

Recruiting

Quant Roles

Trading

- Monitoring trading systems, adjusting parameters, etc.
- Trade analysis
- Quick decision making, highest level of responsibility

Research

- Strategy development
- Statistical analysis and building prototypes
- Longer term projects

Software

- Strategy

 implementation
 and trading
 infrastructure
- Optimization and system improvement

Note: above is a very general breakdown, specifics heavily depend on firm/team

Interview Processes

Trading

- Brainteasers,
 probability,
 betting/strategy
 games, math
- sometimes coding/ml stuff

Research

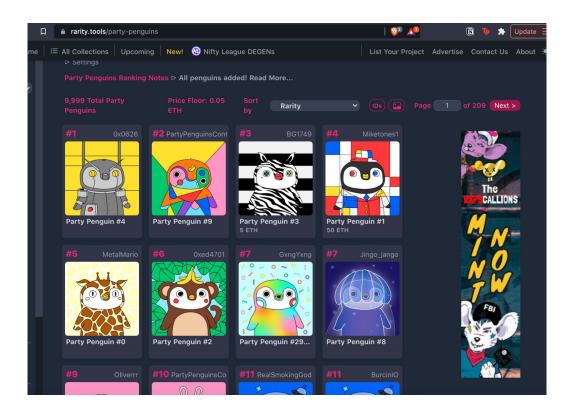
- Similar to trading with more emphasis on theory
- More ml stuff
- Generally targeted toward grad students

Software

- Similar to standard tech interview prep (leetcode, etc.)
- Data structures questions with some trading theme

Note: above is a very general breakdown, specifics heavily depend on firm/team

Quant Share



Yes they're a market

- "They have a price.
- They have volume.
- The market is new and inefficient.
- The market is completely electronic.
- The market is completely transparent.
- The transaction costs are low."

How to buy them

- Buy Cryptocurrency: Join and fund a cryptocurrency marketplace like Coinbase to purchase ETH.
- 2. Get a Cryptocurrency Wallet: Signup for a "Non-custodial" wallet like Metamask, which is where you can store and control your cryptocurrency and digital assets.
- 3. Transfer Your Cryptocurrency: Transfer your ETH coins from Coinbase to your wallet (Metamask or other), which gives you the control to purchase NFTs across the various marketplaces.
- 4. Join the NFT Marketplace, Rarible: Join Rarible, which is a marketplace for NFT artwork. You will be asked to sync your digital wallet (Metamask or other) to the site, which will allow you to purchase and then store your digital assets.

Why Quant?

Like any other strategy, we can identify signals to trade on common marketplaces like rarible, OpenSea, etc. → can we figure out a way to execute strategies like on Alpaca or QuantConnect



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Making Offers

Once you have your asset, you can do this to make an offer on it:

// Token ID and smart contract address for a non-fungible token:
const { tokenId, tokenAddress } = YOUR_ASSET
// The offerer's wallet address:
const accountAddress = "0x1234..."

const offer = await seaport.createBuyOrder({
    asset: {
        tokenId, tokenAddress, schemAdme. If omitted, defaults to 'ERC721'. Other options include 'ERC28 },
        accountAddress,
        // Value of the offer, in units of the payment token (or wrapped ETH if none is specified):
    startAmount: 1.2,
})

When you make an offer on an item owned by an OpenSea user, that user will automatically get an email notifying them with the offer amount, if it's above their desired threshold.
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Project Team Reveals

Team Assignments

GANNs

- Alvin
- Terry
- Andrew
- Carson
- Padmanabha

Policy-Economy Cycles

- Alex Kim
- Ana
- Justin
- Grace
- Michael

Pairs Trading

- Daniel
- Jack
- Matthew
- Paul
- Yidan

Investor Days

- Syrah
- Leyla
- Morgan
- Alex Granda