Obligatory this is not financial advise. Everything expressed in this post is personal opinion. I have no affiliation with GameStop. I have no affiliation with loopring.

Background: If you haven't read [this excellent DD](https://www.reddit.com/r/Superstonk/comments/pki107/the_glass_castle_new_game/) by u/3for100Specials please go read it first, this post hopes to expand on that by looking into the problems GameStop is trying to solve and how they're going to solve them from the perspective of an engineer. Also check out [this DD](https://www.reddit.com/r/Superstonk/comments/pe37k7/the_gme_warpath/) by [u/sharkbaitlol](https://www.reddit.com/u/sharkbaitlol/), his post explain the plan, this post hopes to explain how to execute said plan.

My background: for you nerds I mainly do ts/react today but have web app background from my earlier days, for you apes I turn coffee into code and make the websites you visit look pretty. Blockchain knowledge presented in this post were accumulated within the last 72 hours so take them with a grain of salt.

Problem 1: How do you even receive an NFT token?

It's simple actually, you just need a [wallet](https://www.bitdegree.org/crypto/tutorials/cryptocurrency-wallet). And then you give the address to whoever wants to send you stuff and voila.

Wait what?

[mobile wallet, paper wallet, web wallet, hot wallet, cold wallet, EMPTY WALLET](https://preview.redd.it/9h56k5ukpwm71.jpg?width=399&format;=pjpg&auto;=webp&s;=ee5f155501846ce2f565fc2911f349c5c2655776)

Problem 2: How do you give millions of token out in a foolproof way

This is the million dollar question. As an user, would you rather go through the steps of deciding which wallet to choose and setting everything up on your own THEN giving the address to GameStop or do you want to log into a recognizable interface where everything is already set up correctly for you? Would you trust some 3rd party company that can be bought out any time with our personal identifying information? (cough cough C_inbase)

The solution: build a platform which include wallet storage and UI, and set up [smart contracts](https://ethereum.org/en/developers/docs/smart-contracts/) to automate transactions.

[Look at the skills they're hiring](https://nft.gamestop.com/).
[Solidity](https://docs.soliditylang.org/en/latest/) is a programming language designed for developing smart contracts that run on e t h, react is for UI, Python can be used for many things (let's put a pin in this and come back), however it is well known for supporting [scalability](https://www.conceptatech.com/blog/importance-of-scalability-in-software-design) due to its [functional nature](https://en.wikipedia.org/wiki/Functional_programming).

In ape: they're building a bunch of vending machines with nft tendies, and they're gonna give us a magic basket to store those tendies so others can't steal it as easily.

[gib tendies](https://preview.redd.it/vlxhzjm7qwm71.jpg?width=750&format;=pjpg&auto;=webp&s;=c5cb47
03be79fe85585ae570052ee397ae3e80ab)

Problem 3: How do you effectively standardize each transaction to reduce operating cost

Prior to the London fork, [gas fees](https://changelly.com/blog/ethereum-gas-transaction-fees-explained/)
were calculated based on %. This is a problem because with volume there needs to be more miners to
verify those transactions. When you have extra work but only the same amount of workers (temporarily
until more miners join) the cost of hiring workers are going to raise ***exponentially***. This is why
[EIP-1559](https://eips.ethereum.org/EIPS/eip-1559) the London [hard
fork](https://www.investopedia.com/terms/h/hard-fork.asp) is necessary. When millions of new users join
GameStop needs to ensure the volatility in gas fees won't be a bottleneck for them.

"Needless delays for users: ***because of the hard per-block gas limit coupled with natural volatility in
transaction volume, transactions often wait for several blocks before getting included, but this is socially
unproductive****;* no one significantly gains from the fact that there is no "slack" mechanism that allows
one block to be bigger and the next block to be smaller to meet block-by-block differences in demand.

Inefficiencies of first price auctions: ***The current approach, where transaction senders publish a
transaction with a bid a maximum fee, miners choose the highest-paying transactions, and everyone pays
what they bid.*** This is well-known in mechanism design literature to be highly inefficient, and so complex
fee estimation algorithms are required. But even these algorithms often end up not working very well,
leading to frequent fee overpayment."

After EIP-1159, each transaction is going to consist of a fixed base fee plus the priority fee (how much
extra you're willing to pay to have this verified earlier than others), this collectively is the max fee. At this
point the bottleneck problem is significantly reduced since everybody will be getting the same base fee,
and priority fee can be adjusted to account for network congestion. Foobar actually posted a cool graph
comparing the price volatility [on their
twitter](https://twitter.com/0xfoobar/status/1427132305982713860?s=20). Their twitter feed is a gold mine
of information in this space, if you're a krypto nerd please check it out.

[Gas price volatility comparison from foobar's writter](https://preview.redd.it/r5yxeokqowm71.jpg?width=68
0&format;=pjpg&auto;=webp&s;=a82902dc3fb4af6e386d0141562ef1c08cf16948)

In ape: cost for operating the vending machine is too high based on original pricing model. This update
gives more predictable cost estimates for mass transactions.

Where does Loopring come in?

I'm SO GLAD you asked. [Loopring is an Ethereum Layer-2 scaling protocol](https://loopring.org/#/), it
allows complex executions to be performed efficiently. This reduces verification of transactions on
[layer-1](https://ethereum.org/en/glossary/#mainnet) (which in turn leads to even lower cost overall). This
capability means significantly more complex interactions can happen off chain and is only committed to
layer-1 when it is ready to be 'finalized'. Buy and sell in game items anyone?

For you nerds [***this article on medium***](https://medium.com/loopring-protocol/loopring-cto-steve-
what-is-the-real-future-of-layer-2-networks-7257934212e4) ***gives a really good explanation of the
history and the future of layer-2 networks. This is to the blockchain world what react is to the front end
world IMHO. Down to the state layer and rollup (virtual dom anyone?)***

OH and, they provide [wallets](https://loopring.io/#/) and [have their own
exchange](https://exchange.loopring.io/). Did that just solve the problems from above?

In ape: Loopring is the guy that stocks the vending machine. Instead of putting a bunch of items separately
and stock at vending machine location, they presort/prepackage the contents and drop them off at the

vending machine so they can stock more machines on the way and cost significantly less. And they provide the magic baskets and credit cards. And they have a marketplace for items in the vending machine too.

[it's almost an all-stop shop](https://i.redd.it/cgs4r44tswm71.gif)

Tinfoil hat time

I think we're very close to platform launching. They have addressed the majority of the technical challenges imo (not a crypto SME so please speak up if you feel otherwise) and the last stretch in leg is addressing scalability issues. This conclusion is drawn based on Matt Finestone's tweet asking for scala engineers. Like python it's a language that's very functional in nature and excellent for back end services. Oh speaking of python remember the pin earlier? I found [this](https://web3py.readthedocs.io/en/stable/quickstart.html#installation) when browsing the documentation page for [ERC-721](https://ethereum.org/en/developers/docs/standards/tokens/erc-721/) Hmm wut mean? Let's also not forget the all star team they pulled from Amazon.

Think of the platform mentioned as a service like aws. When this infrastructure is ready, it can be used for multiple things. ***ISSUING NFT DIVIDEND***, exchange NFT games (and in game items), exchange [NFT Options](https://etherscan.io/address/0x6a17acf216b97c2ea8f4046a7d5edf4288066d9a).

See you all on the moon very fucking soon apes.

Bonus:

[BOOM](https://preview.redd.it/2vmjdcuw0xm71.png?width=716&format;=png&auto;=webp&s;=18bc8e708c0ee367016769fcbdec95d4b64e21e9)

TADR: HOLD ON TO YOUR SHARES and BUCKLE UP.

ps - there was a tweet by someone (was it foobar i can't remember) saying something about baby's first pull request, can someone point me to where it is? Once we get the PR date we can probably find the PR on github.