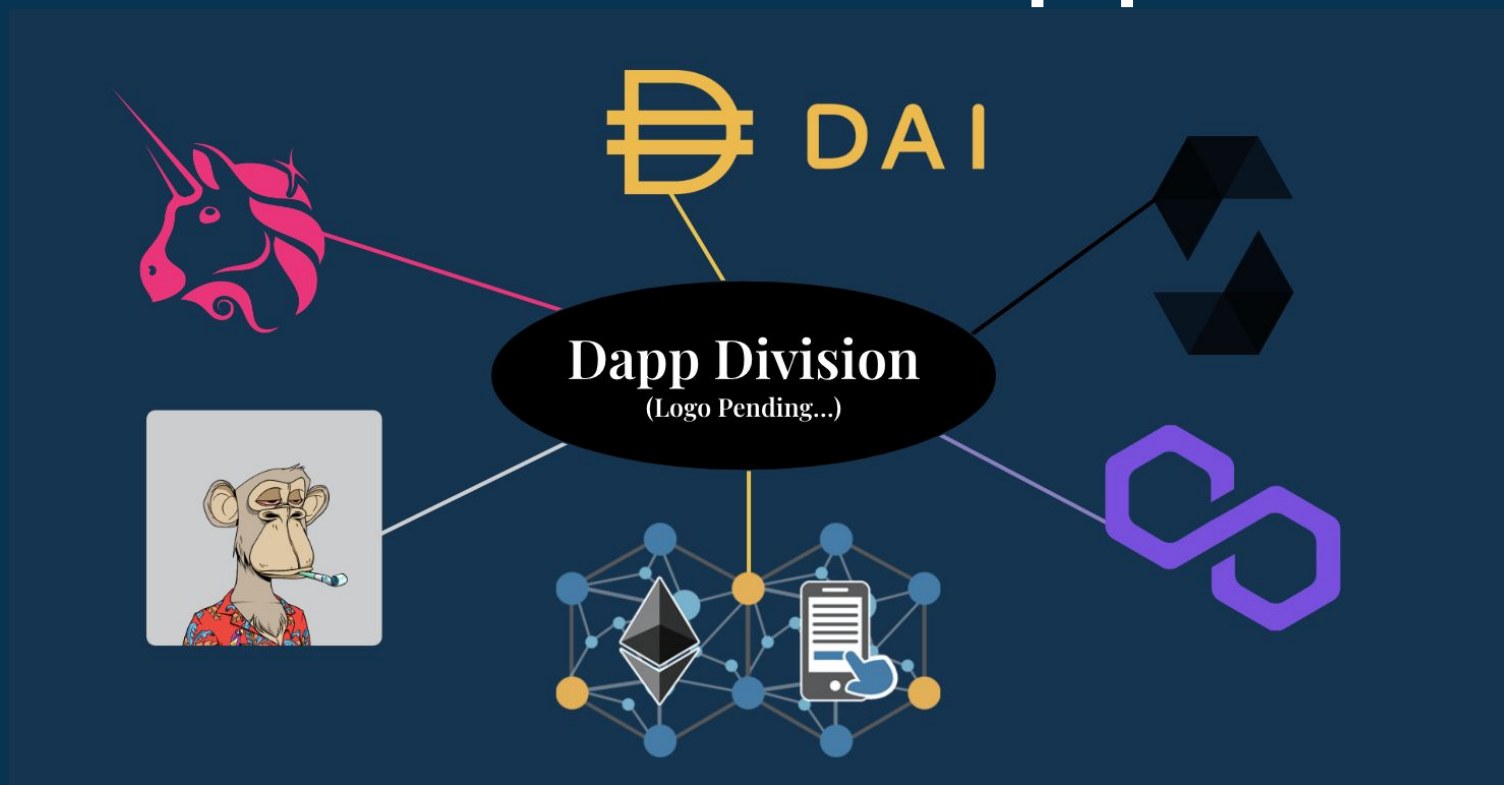




Oregon  
Blockchain

# Week 3: Dapps!

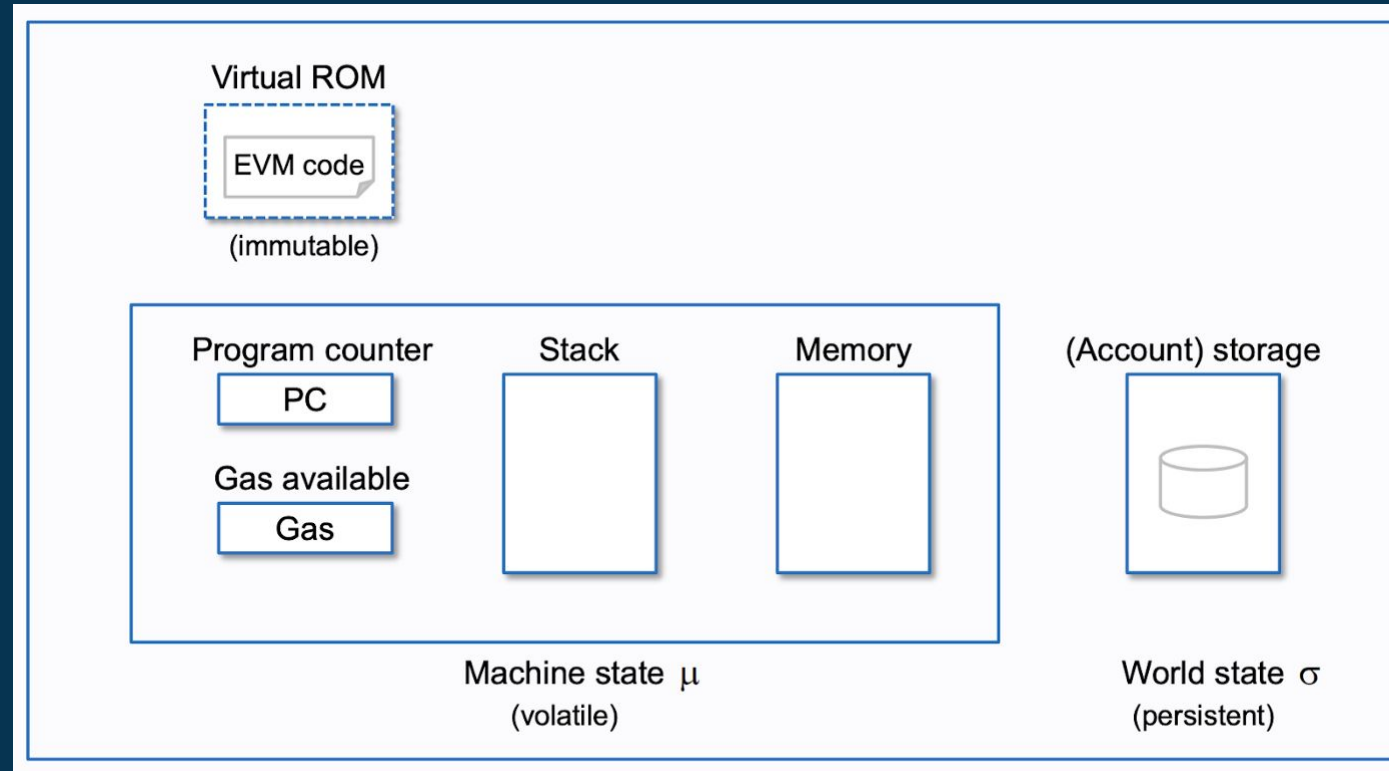


# Homework!

- Running a node
- Who read Bitcoin independence day?



# Revisiting VMs



# Revisiting VMs

## Assembly view

```
PUSH1 e0  
PUSH1 02  
EXP  
PUSH1 00  
CALLDATALOAD  
:
```

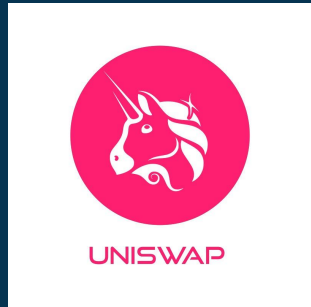
## Bytecode view

```
0x60e060020a600035...
```

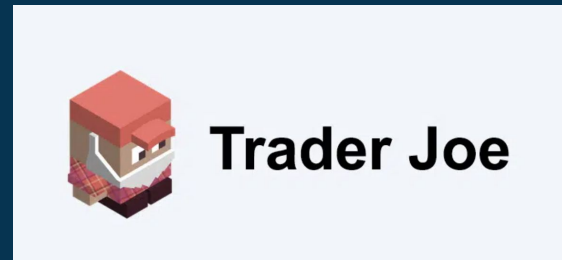
# What is a Dapp?

---

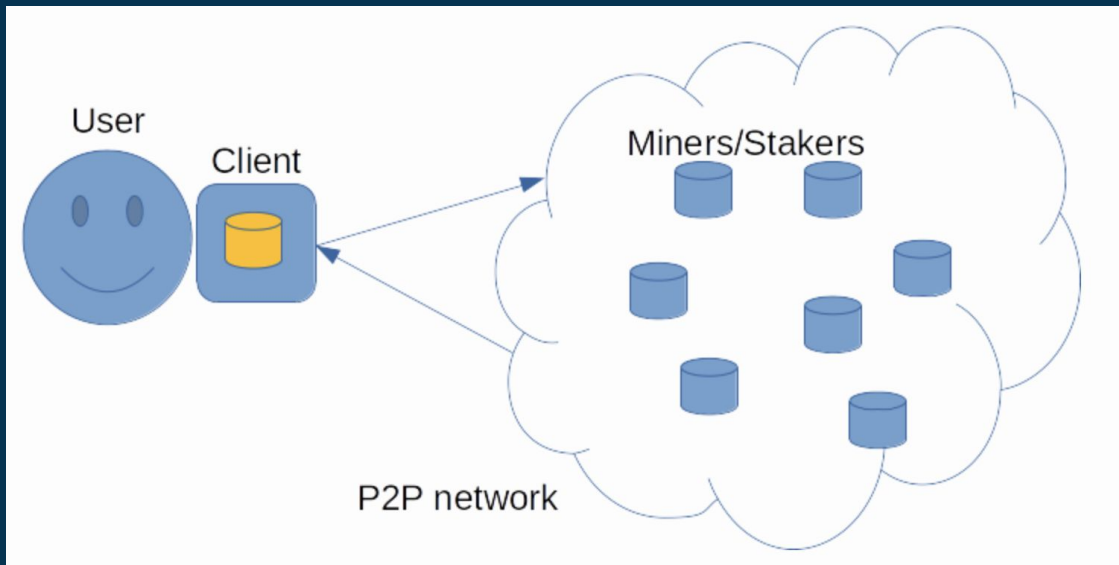
Popular Dapps!



Dapps in the OBG Fund!



# Dapps vs CeFi



VOYAGER

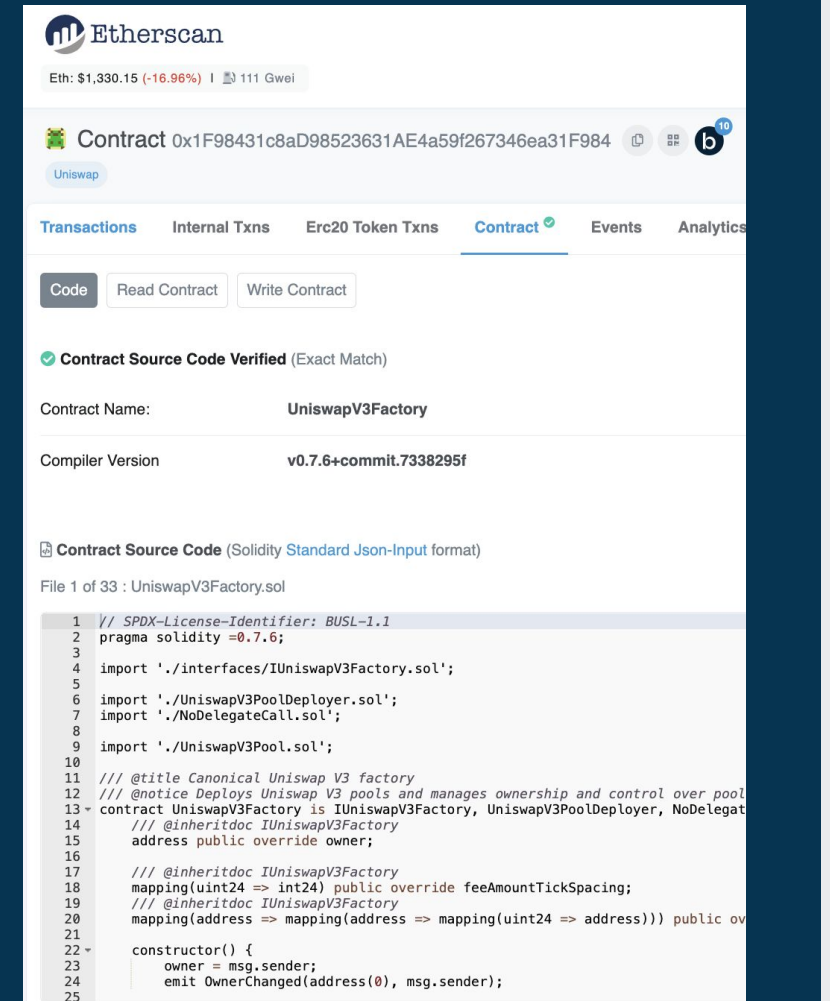
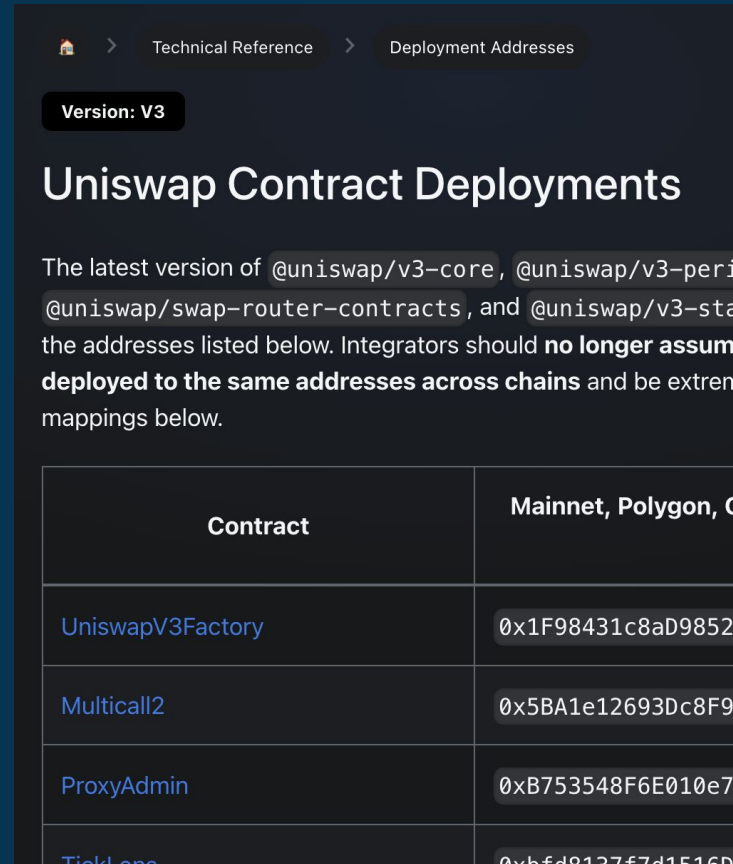
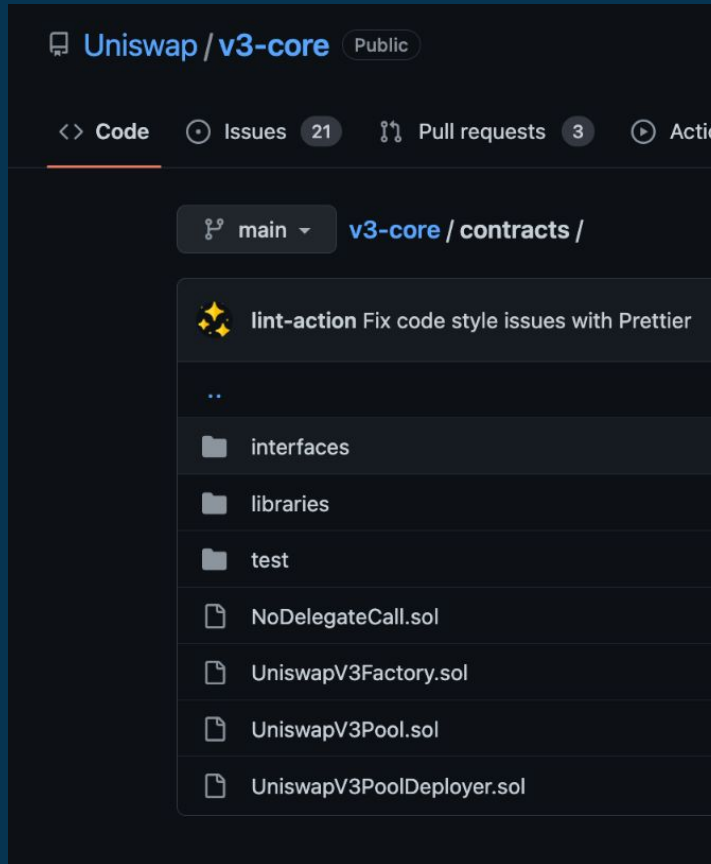
coinbase

BlockFi

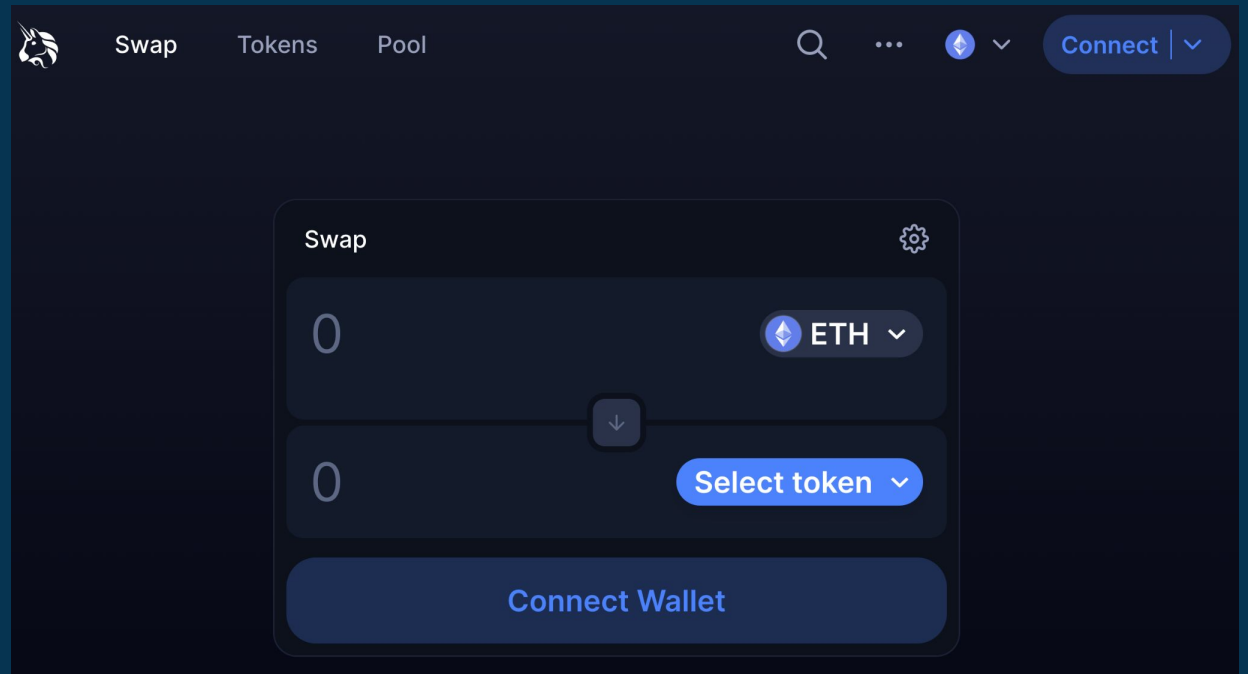
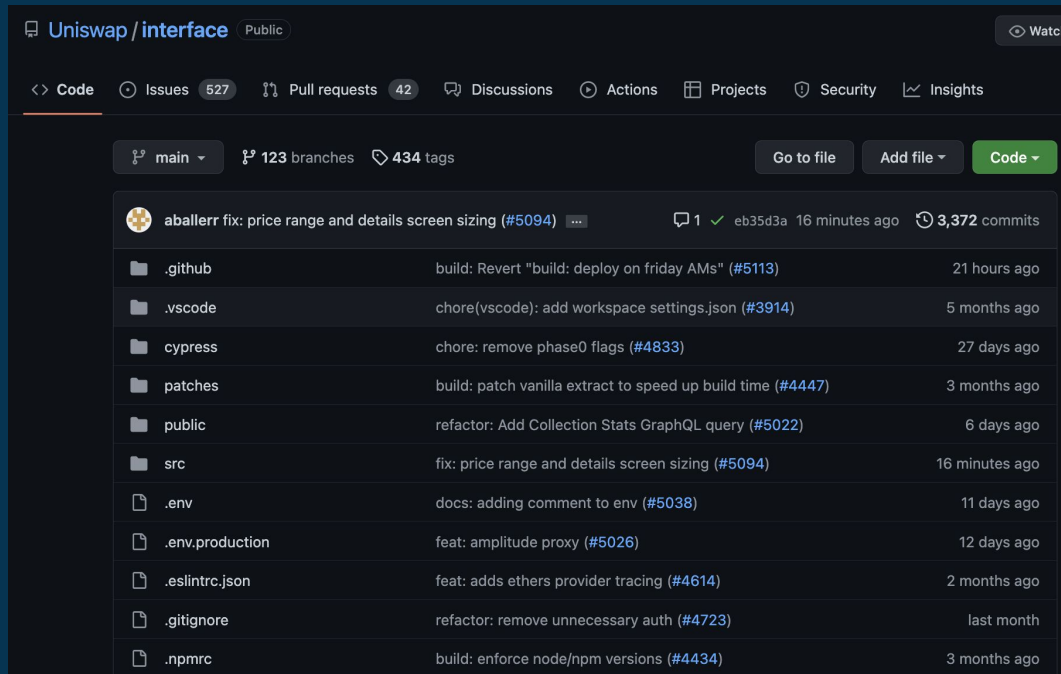
BINANCE

FTX

# Dapp backend: EVM languages!



# Dapp frontend: Typescript & React!

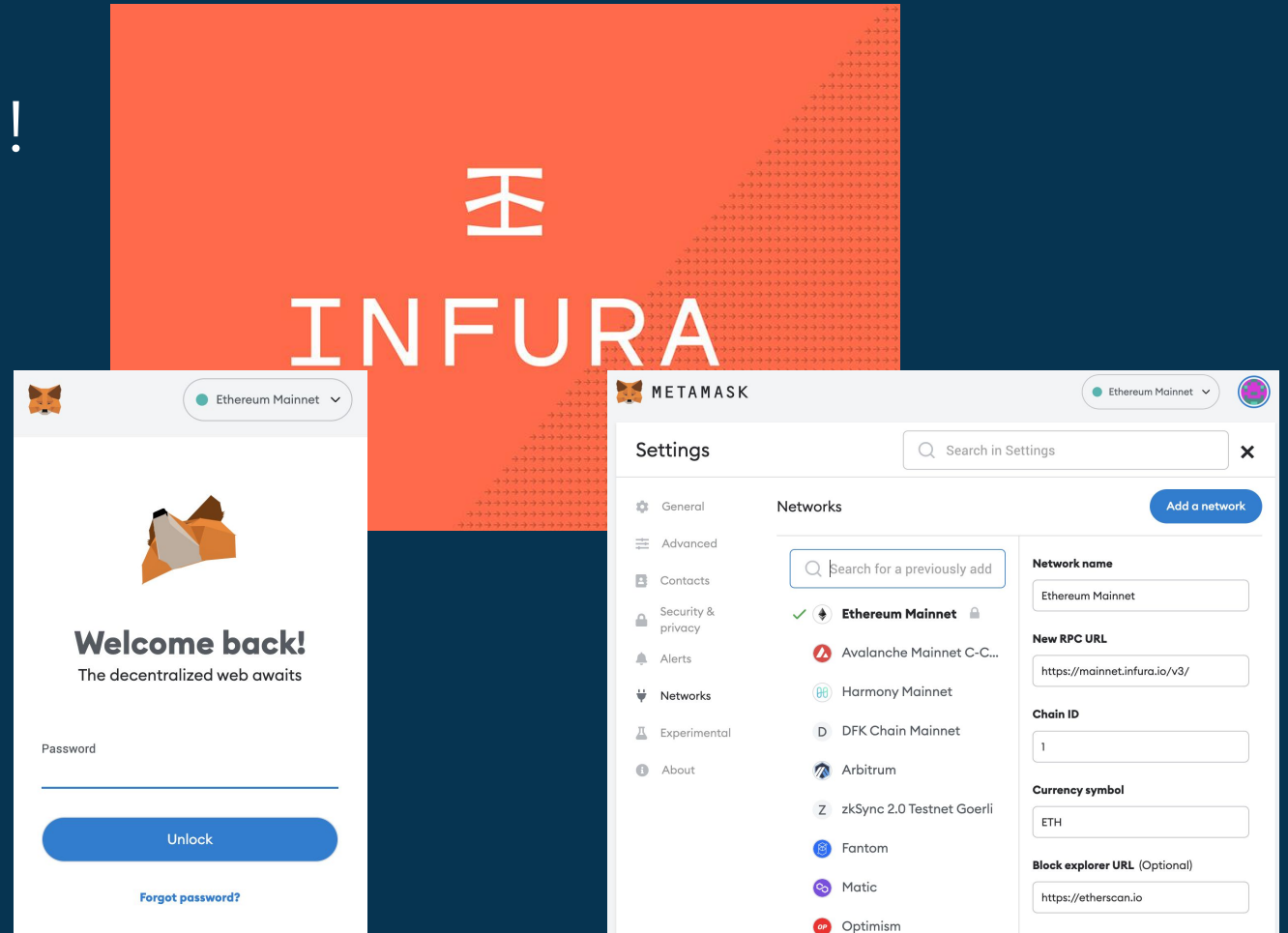




# How do your keys interact with Dapps?

- Running a node is hard!
- Browser wallets
- RPC nodes

- Interacting with smart contracts directly?



# Tornado Cash

- Government no likey!
- Banned app
- Can interact with contracts directly (at your own peril!)
- Frontend was censored!



# Dapp Endgame

## Bad parts of dapps

1. Centralized frontend
2. Centralized RPC service

## Improvements

1. IPFS? Opensource?
2. Run your own node! In the future, browser clients :)

# What Dapps can we use today?

## Today:

- Low compute apps, blockspace/compute too expensive for anything cool!
- Defi
- NFTs



## Future

- Ethereum working very hard to make compute cheaper!
- Video Games
- Social Media
- More interactive and immersive dapps!



# Blockspace Example

## Ethereum Average Block Size

81092.00 B for Nov 07 2022



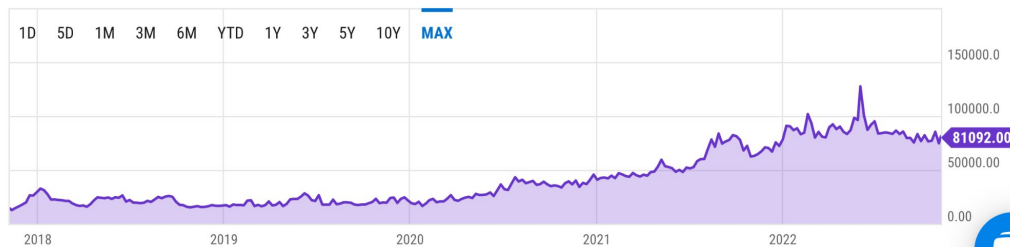
+ WATCHLIST

Overview

Interactive Chart

Level Chart

VIEW FULL CHART



## Information

Seller  
Instagram, Inc.

Size  
237.7 MB

Compatibility  
**iPhone**  
Requires iOS 12.4 or later.

Languages  
English, Croatian, Czech, Danish, Dutch, Finnish,  
French, German, Greek, Hindi, Hungarian, [more](#)

**iPod touch**  
Requires iOS 12.4 or later.

Copyright  
© 2018 Instagram, LLC.

Price  
Free

- Ethereum block size changes!
- $237.7 / .081092 = 2,931$
- $2,931 * (15,000,000 * 1.49) = \$65 \text{ million}$

## Ethereum Gas Tracker

Next update in 0s

Tue, 08 Nov 2022 21:30:52 UTC



Low

57 gwei

Base: 56 | Priority: 1  
\$1.44 | ~ 10 mins: 0 secs

Average

57 gwei

Base: 56 | Priority: 1  
\$1.49 | ~ 3 mins: 0 secs

High

59 gwei

Base: 56 | Priority: 3  
\$1.52 | ~ 30 secs

# Onboarding Checklist

- ✓ Week 1: Introductions
- ✓ Week 2: What blockchains solve
- ✓ Week 3: How a blockchain works
- ✓ Week 4: How to use a blockchain
- Week 5: Social layer (why blockchains!)

# Homework

1. Make a browser wallet
2. Store private keys
3. Use Uniswap or something from the OBG fund!

