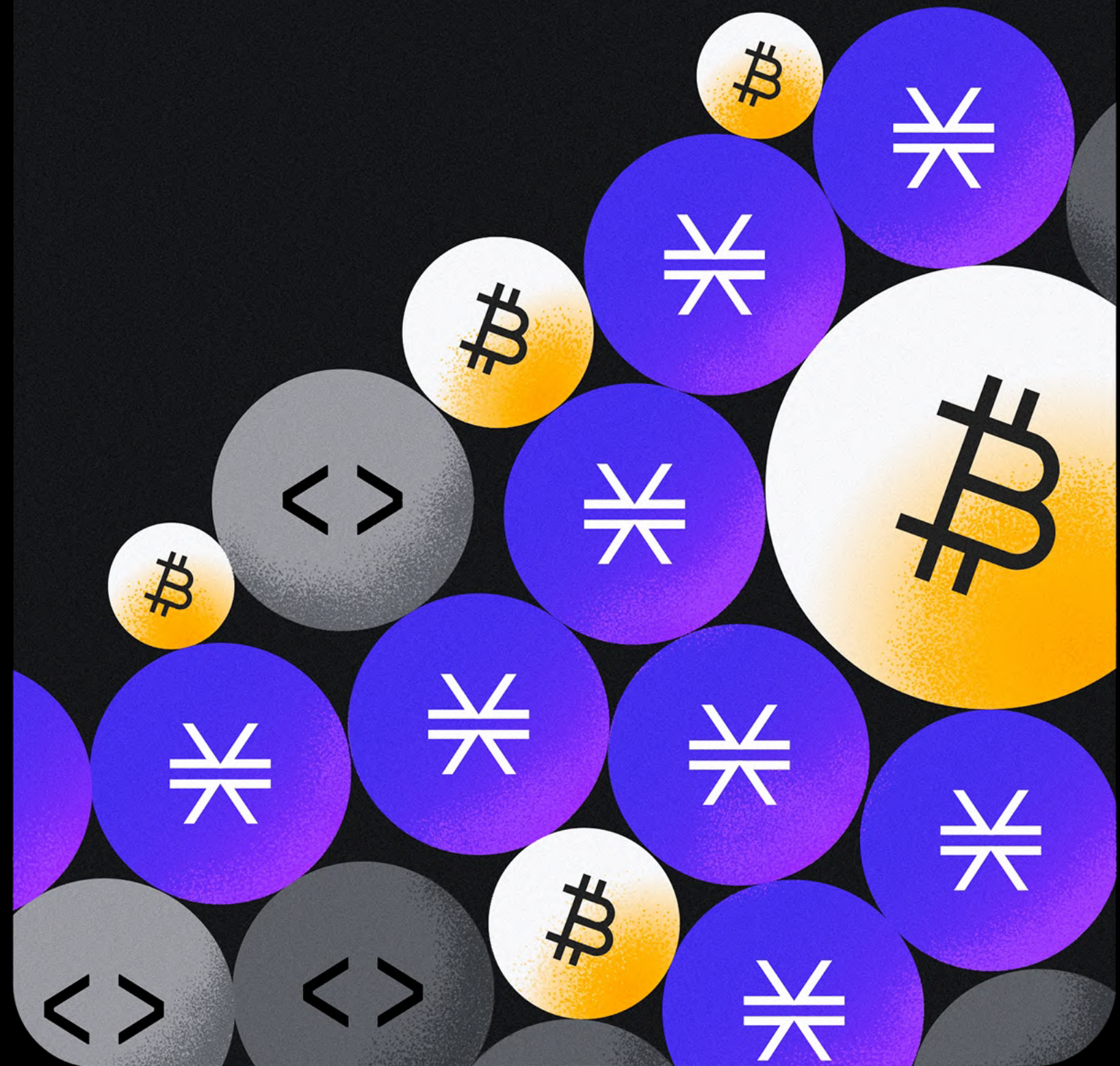


Stacks

Smart Contracts for
Bitcoin

✖ Stacks

Pitch



Web 3 will emerge from crypto.





03 It's already happening

- Applications built on top of smart contract platforms have accrued billions of dollars in value.
- Currently there's over \$50 billion locked into DeFi protocols, while NFT sales rose to \$2.5 billion in H1 of 2021.

Crypto protocols — Until now



&



&



BITCOIN

ETHEREUM

OTHER PROTOCOLS

Digital gold

Apps and
smart contracts

Apps and
smart contracts

Crypto protocols — The new wave



&



&



BITCOIN + STACKS

ETHEREUM

OTHER PROTOCOLS

Digital gold, apps, and
smart contracts

Apps and
smart contracts

Apps and
smart contracts

Bitcoin — The foundation for a new internet.

Why Bitcoin?



- Bitcoin has the **largest network** and market cap.
- Bitcoin is the **most decentralized** of the large Layer-1 networks, ensuring that value accrues to users and creators.
- Institutions and central banks are likely to hold Bitcoin instead of other crypto assets.

Stacks — Unleashing Bitcoin's potential.

Smart contracts directly on Bitcoin are the Holy Grail of crypto.

Satoshi Nakamoto, the creator of Bitcoin,
envisioned similar designs.



A completely separate
network and separate
blockchain, yet it shares
CPU power with Bitcoin.

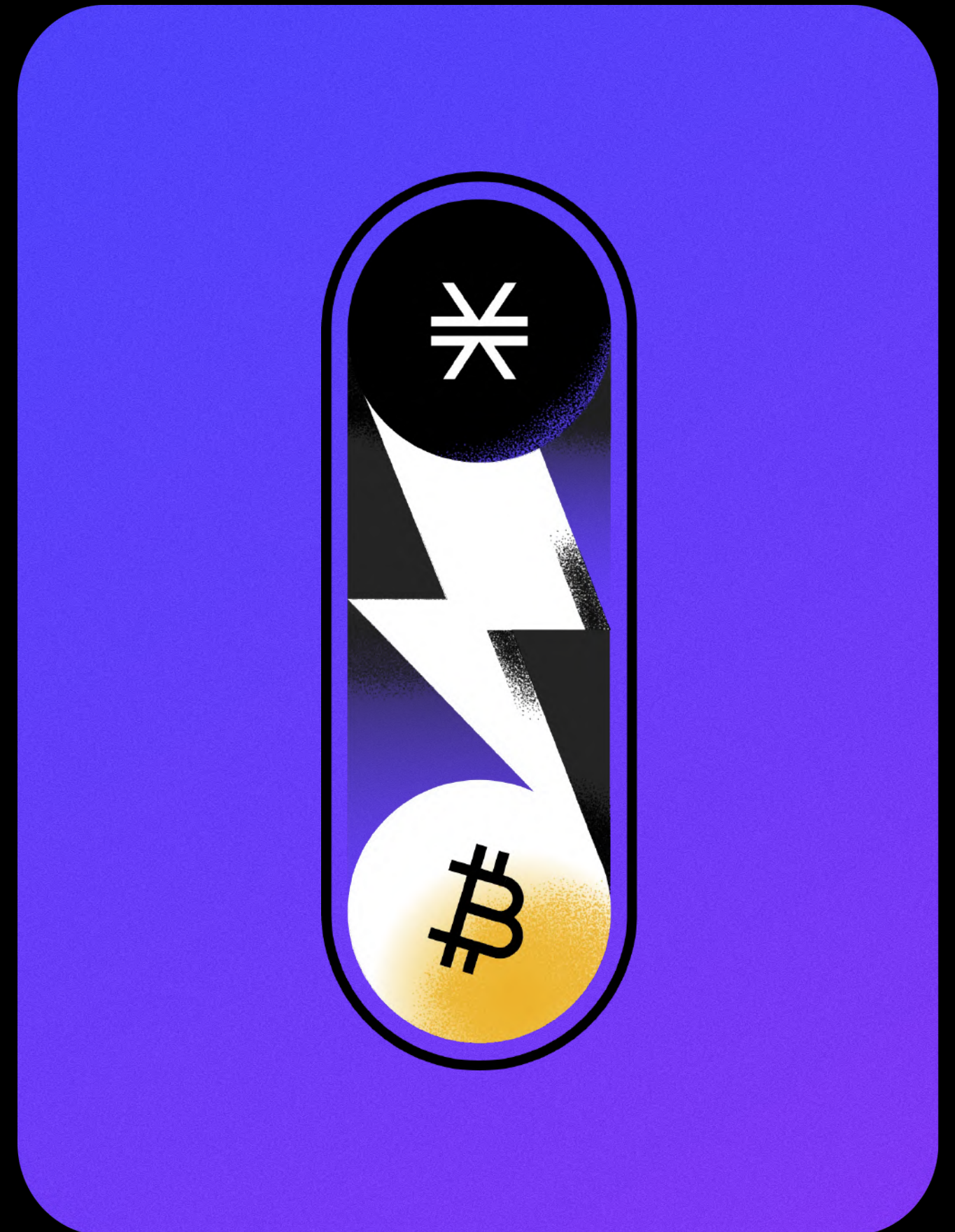
– Satoshi

bitcointalk.org

Bitcoin and Stacks together can power the next wave of decentralized apps.

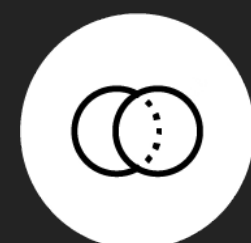
Bitcoin (BTC) is reserve currency. Stacks (STX) is fuel for smart contracts.

Stacks tethers to Bitcoin for security and makes BTC programmable, putting Bitcoin's ~ \$1 trillion of passive capital to active use.



Meet the  stack.

The stack



Clarity Smart Contracts

Clarity makes a set of tradeoffs geared for safety and predictability.

- **Predictable**: Clarity uses precise syntax so developers know exactly how contracts will execute; with no compiler, contracts are broadcasted on the blockchain exactly as written.
- **Decidable**: Clarity is decidable rather than Turing complete; the minor loss of expressiveness is outweighed by the benefits in safety.
- **Secure**: Allows users to supply their own conditions for transactions, ensuring a contract will never unexpectedly erroneously transfer any tokens.
- **Visibility into Bitcoin**: Clarity can read and act on Bitcoin's blockchain state.

The stack



Clarity Smart Contracts



Proof of Transfer (PoX)

- PoX is a novel blockchain consensus mechanism, the first to connect two separate blockchains (Bitcoin and Stacks).
- PoX is independently supported by STX Miners - who bid BTC in competition to win the next block - and Stackers, who lock STX funds to help secure the network and gain BTC rewards as compensation (this mechanism is called Stacking).
- Stacking delivers a native BTC yield, akin to a programmable bitcoin bond.
- PoX allows developers to benefit from Bitcoin's properties without modifying Bitcoin itself.
- PoX reuses the energy already expended in Bitcoin's PoW: "Stacks turns Bitcoin's digital gold into jewelry."

The stack



- Stacks token (STX) required to design and run a fully decentralized blockchain. STX provide incentives to Stacks miners and network participants.
- Stacks allows for cheaper, more efficient app infrastructure connected to Bitcoin (transactions, fuel for smart contracts etc.)
- Instead of spamming the Bitcoin network, thousands of STX transactions settle on Bitcoin in one single hash per Bitcoin block.

The stack



- Open source libraries for user authentication, transaction signing, and data storage mean anyone can build a decentralized app in hours.
- Blockchain Naming System (BNS) means developers can create and take advantage of human readable accounts.
- Thriving developer community and hundreds of apps built translated into a highly user-tested Stacks Wallet for Web with end user protections.

With the help of a
thriving ecosystem
of **builders** &
integrators

Protocol & App Builders

 Stacks
Foundation

 Stacks
Accelerator

 Hiro

 DAEMON
TECHNOLOGIES

FR==HOLD

 New Internet Labs

30+ others

Trading & Custody

 **BINANCE**

 okcoin

coinbase | Custody

 **KUCOIN**

 crypto.com

UPbit

 **BitGo**

Integrators

 Chainlink

 BLOCKDAEMON

 Blockchain.com

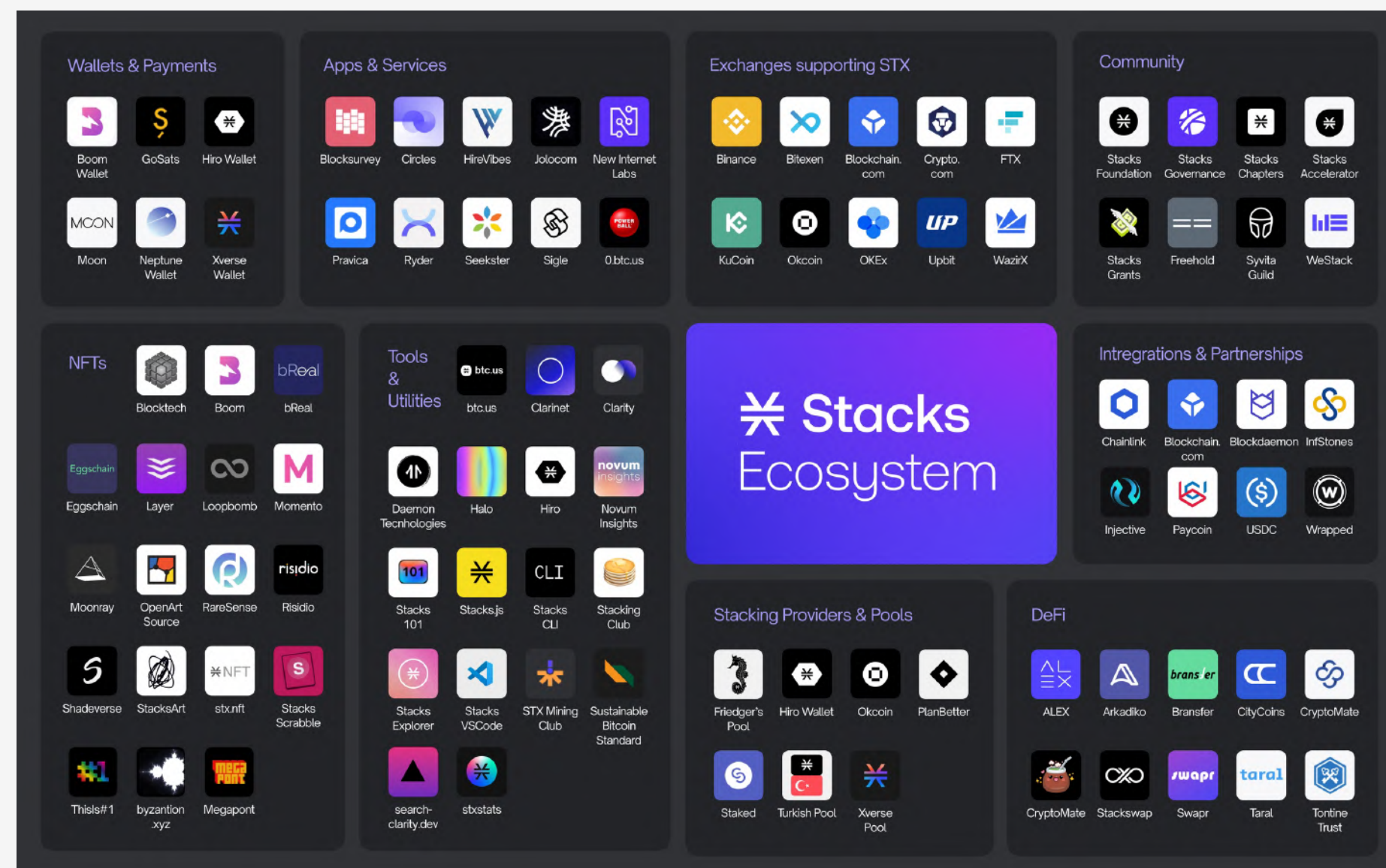
 CIRCLE

Research & Education

 LUMS

With the help of a thriving ecosystem of **developers** & **entrepreneurs**

Apps & Platforms

[↗ See all apps](#)


The Stacks Accelerator plans to fund 100 teams to build the next billion dollar company on Stacks.

140+ Clarity contracts created and growing.

With the help of a
thriving ecosystem
of believers &
community members

\$2B

STX Market Cap

\$900M

Locked in Stacking

↗ stacking.club



6k
Members



50k+
members



80k
Followers



3k Members

Use case

01

Bitcoin DeFi

ALEX



- With ALEX you can lend your BTC and earn fixed or variable interest
- Borrow BTC without risk of liquidation
- Mitigate risk with BTC short positions
- Maximize upside with BTC leveraged long positions



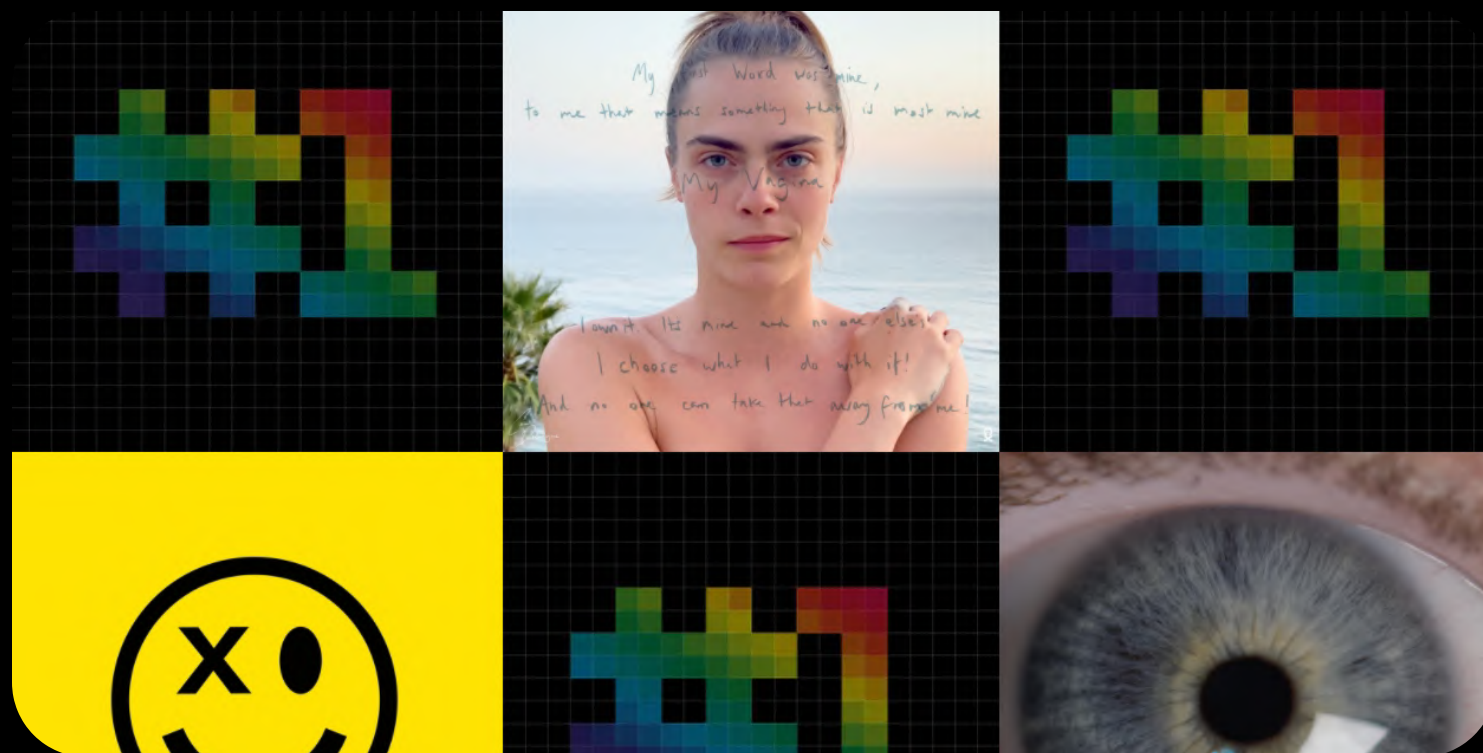
Arkadiko

- Arkadiko is a decentralized, non-custodial liquidity protocol where users can collateralize their assets and mint a stablecoin called USDA.
- Utilizing yield from PoX (Proof of Transfer), a STX-collateralized Vault that mints USDA creates a self-paying loan.

Use case

02

ThisIsNumberOne



➤ [ThisIsNumberOne](#)

- Bitcoin and STX connection expands the NFT opportunity - benefit from the security, stability, and scalability
- Digital property ownership secured by the durability of Bitcoin
- NFTs can earn native BTC yield
- Creator participation in secondary market transactions AND Stacking yield

Use case

03

.btc domains



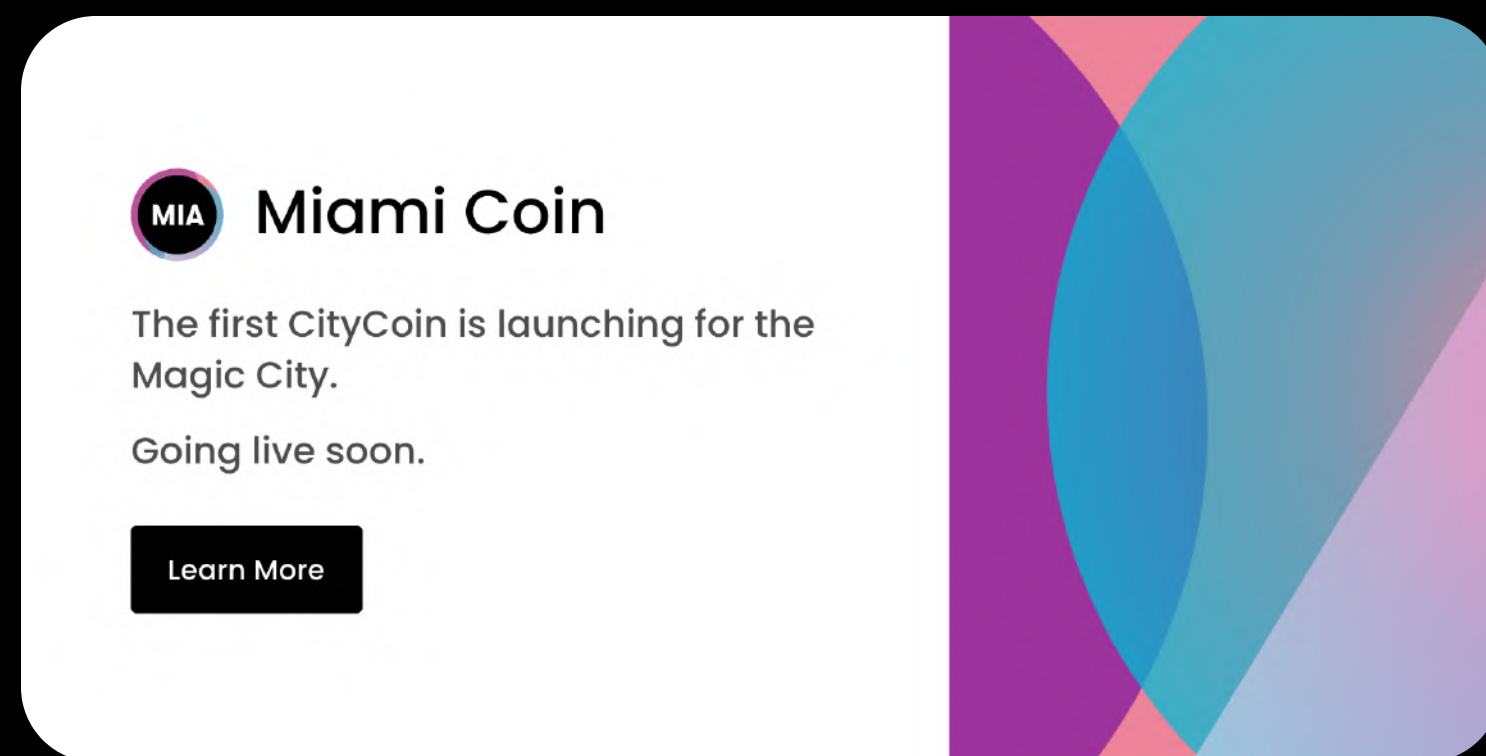
↗ btc.us

- Decentralized names are secured on the Bitcoin blockchain, registered by Stacks
- Ownership of every .btc name is represented in a hash of the Bitcoin blockchain
- Instead of spamming the bitcoin blockchain with name registrations, thousands of Stacks transactions settle in a single transaction on the Bitcoin blockchain

Use case

04

CityCoins



↗ citycoins.co

- Invest in a CityCoin and help grow its treasury, providing capital for local growth and opportunity:
 - Municipal equity vs. municipal debt
- Miners bid in STX:
 - 30% goes to city treasury (where it can be stacked to earn BTC yield)
 - 70% goes to CityCoin holders as a STX yield (STX can be further stacked for BTC)
- Stacking:
 - CityCoin holders stack for yield while investing in city's longterm prosperity

Hiro — The place to build on Stacks.

Powerful developer tools for the Stacks Ecosystem

- Hiro Platform hosted service will make it easy for developers to build, test and deploy smart contracts, digital assets, and decentralized applications.
- Potential features include scalable and secure transaction signing, authentication, and data storage built on Bitcoin as the base layer.

Contract call

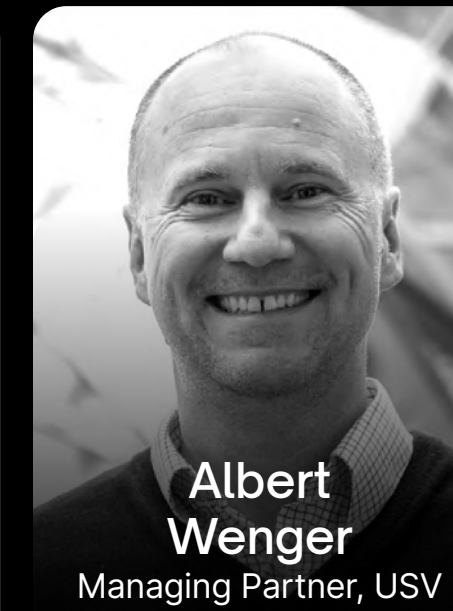
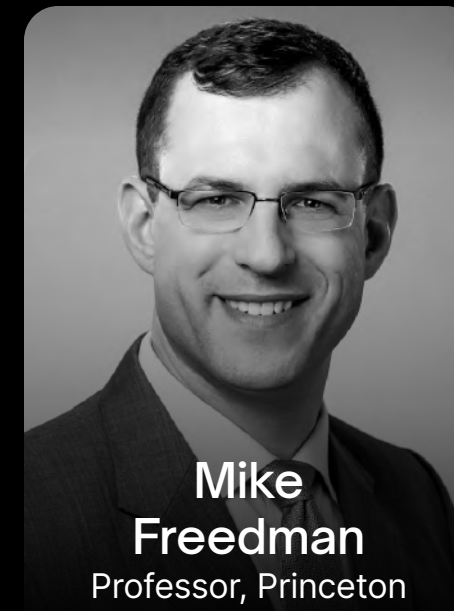
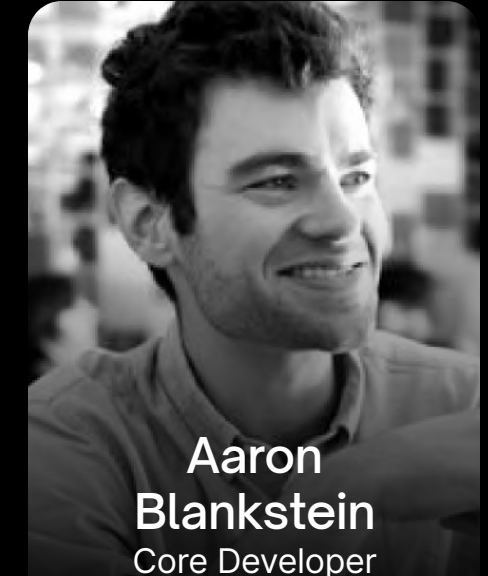
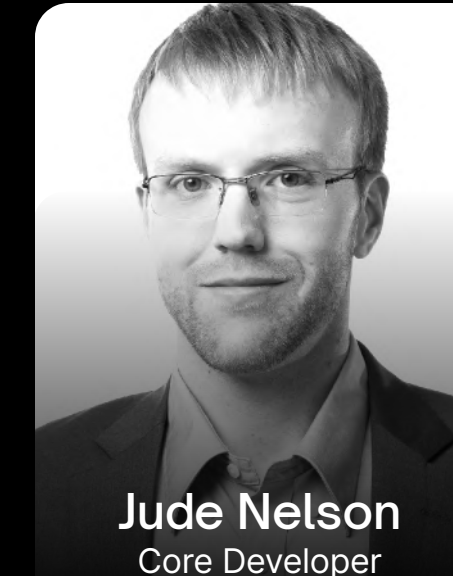
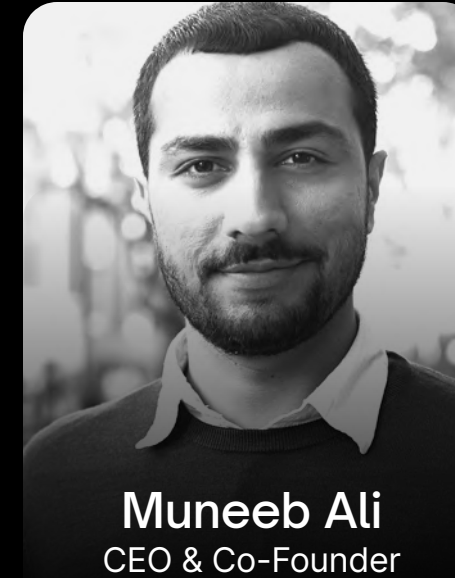
```
//Call a contract function
const txOptions = {
  contractAddress:
    'SPBMRFRPPGCDE3F384WCJPK8PQJGZ8K9QKK7F59X',
  contractName: 'swapr',
  functionName: 'swap-tokens',
  functionArgs: [bufferCVFromString('stx')],
```

Stacking

```
1 //Stack STX
2 const poxAddress =
3   '1Xik14zRm29UsyS6DjhYg4iZeZqsDa8D3';
4 const amountMicroStx = new BN(300000
5   const cycles = 10;
6   const key =
7     'd48f215481c16cbe6426f8e557df9b78895
8     45abddcd5377001';
```


Years of distributed systems R&D

- 8 distributed systems PhDs
- 2 scientists with Presidential Career Awards
- 15,000+ research citations among whitepaper authors
- Research published at USENIX ATC, DCCL
- Board: Mongo DB (IPO), Twilio (IPO), Etsy (IPO)





Join our Community



Discord



Twitter



Telegram



GitHub



Reddit



Forum

↗ stacks.co