RSK Block Explorer & PySOVRYN Data Library

UI/UX & Python Library Proof of Concept v.2

CONFIDENTIAL

chainhaus

What We Are Delivering

RSK Explorer: A fresh new RSK block explorer with emphasis on data analytics, ease of use and DeFi perspectives

PySOVRYN: A simple to use Python library that enables data science techniques on the RSK blockchain and SOVRYN artifacts

chainhaus

Key URLs

RSK Explorer: http://rsk.chainhaus.com
PySOVRYN: http://pysovryn.com

GitHub

RSK Explorer: http://github.com/jamiels/rsk-explorer
PySOVRYN: http://github.com/jamiels/pysovryn

chainhaus

Live Early Preview
http://rsk.chainhaus.com

Note: For demonstrative purposes only. Uses dummy data.

chainhaus

About Chainhaus

We specialize in blockchain, DeFi, data science and machine learning.

We can deliver a **robust user experience** through our understanding of blockchain, DeFi and data science and focus on quality software delivery.

chainhaus

Block Explorer: Work That Remains

Complete UI, UX
Wire data via RSK node (significant effort)
Search engine
Build REST/Websockets API (?)
DB
Wire in CI/CD
Build out auth features
Advanced machine learning and data analytics

chainhaus

PySOVRYN: Work That Remains

Full suite of data retrieval, analytics and charting

chainhaus

Block Explorer

Menus

Expanded / Collapsed

chainhaus

RSK Explorer Fluent

- Dashboard 🏠
- Prices $
- Liquidity Pools ○
- Blocks
- Transactions
- Addresses @
- Nodes
- Tokens
- Stats
- Block Details
- Address Details

chainhaus

Menus

Expanded / Collapsed

chainhaus

Dashboard

2

7

EN

Home · **Dashboard**

Transaction Density
Transactions Per Block

3

Hashrate
Net EHs

33

BTCs Locked
Locked in 2WP

2,033 RBTC

Blocks

	CURRENT BLOCK		TRANSACTIONS
≡	3,470,244	☁	2

Height	Transactions	Block Hash	Miner
3,470,244	2	0x37..0253	0x8A..CC3e07
3,470,243	5	0x37..0253	0x8A..CC3e07
3,470,242	3	0x37..0253	0x8A..CC3e07

Transactions

	TX VALUE		TX HASH
≡	.01 RBTC	☁	0x297c..134ed

TX Hash	Block	From	To
0x297..c134ed	3,470,268	0x000000..0000	0x0000..000008
0x397..c112bf	3,470,268	0x000000..0000	0x0000..000008
0x297..a124ea	3,470,268	0x000000..0000	0x0000..000008

💬 Support Chat

chainhaus

Prices

RSK Explorer | Fluent

Navigation
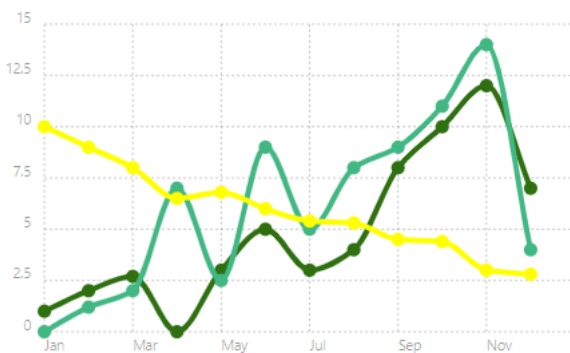- Dashboard
- Prices $
- Liquidity Pools
- Blocks
- Transactions
- Addresses
- Nodes
- Tokens
- Stats
- Block Details
- Address Details

Prices

Asset	Price	Change	Rate
BTC	97.20	11.7% ↑	0.00016985
SOV	8.26	67.5% ↓	0.00016985
RSK	5.20	-22.9% ↓	0.00016985
ETH	3.20	-12.3% ↑	0.00016985
BTG	5.64	+4.3% ↑	0.00036234
XRP	6.36	-4.2% ↓	0.00035685
ZEC	6.35	-1.7% ↑	0.00000985
ZCL	1.03	-2.8% ↑	0.00000152

Date: n/a O: n/a H: n/a L: n/a C: n/a Vol: n/a

RSK-USD

Built by Chainhaus

EMA (20) EMA (50)
n/a   n/a

60.53

60

58

May   Jun   Jul 2016   Aug   Sep   Oct 2016   Nov

EN

Liquidity Pools

(Uniswap shown as an example, can include SOVRYN liquidity pools)
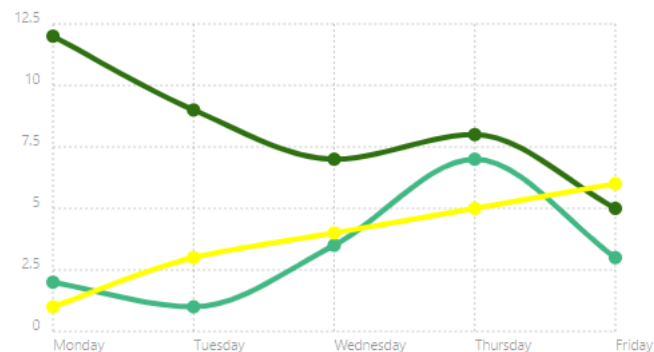
chainhaus

Search by address / blo...

2

7

EN

Dashboard

Prices

Liquidity Pools

Blocks

Transactions

Addresses

Nodes
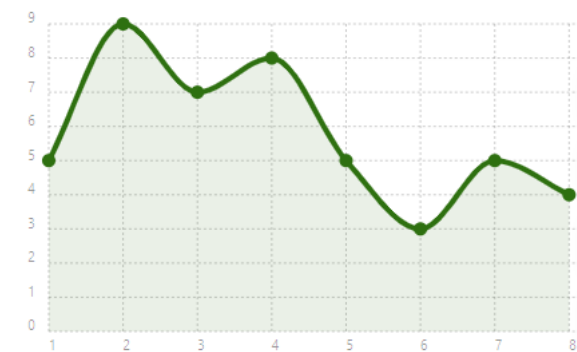
Tokens

Stats

Block Details

Address Details

Home · Liquidity Pools

Liquidity Pools

Uniswap

Item		Value
Liquidity		$32,076,400
Pools		3
Other		Other
Smart Contract Address		https://info.uniswap.org/#/pools/0x3c4323f83d91b500b0f52cb19f7086813595f4c9

PancakeSwap

Item		
Liquidity		$32,07
Pools		
Other		
Smart Contract Address		https://info.uniswap.org/#/pools/0x3c4323f83d91b500b0f52cb19f7086813595f...

chainhaus

Stats

Registered
User

chainhaus

RSK Explorer Fluent

EN

Hello, Ingamar Ramirez

Email: hello@chainhaus.com
Phone: —

Edit Profile

Logout

Dashboard

Prices

Liquidity Pools

Blocks

Home · **Block Details**

3,470,356 BLOCK

Block Hash   **Transactions**
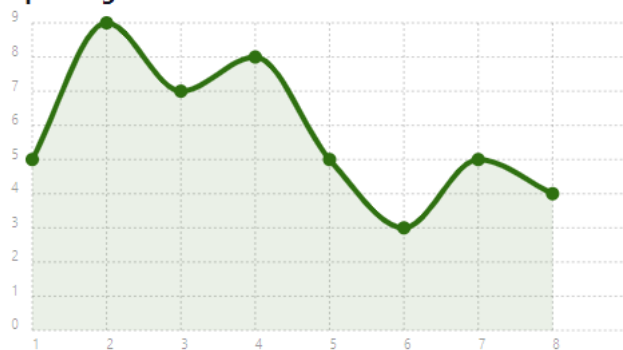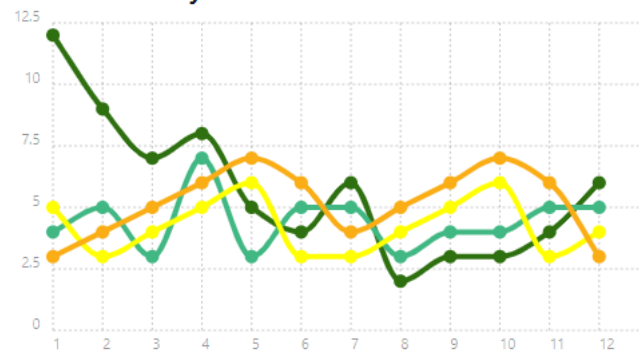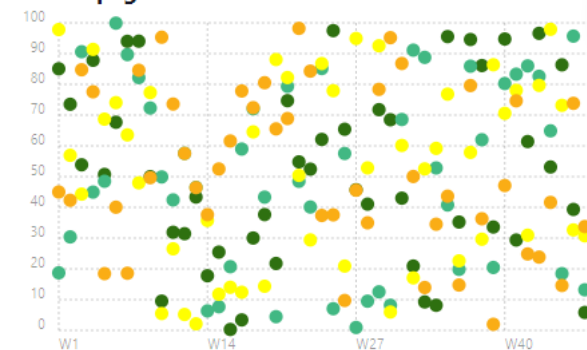
chainhaus

Login / Sign Up / Forgot Password

chainhaus

RSK Explorer Fluent

Sign In

Login and password
hello@chainhaus.com / chainhaus123

○ JWT ○ Firebase ○ Auth0 ○ Strapi

hello@chainhaus.com

••••••••••••

Sign in

Forgot Password?

Create your account

And start spending more time on your projects and less time managing your infrastructure.

Full Name

Email Address

Password

Sign up

By signing up, you agree to the Terms of Service and Privacy Policy

Already have an account? Sign in

Reset Password

Email Address

Reset my password

← Go to Sign in

chainhaus

Search

0x2f..

✓ Search RSK and BTC   Press enter to search

chainhaus

Footer

Dark Mode

chainhaus

Hashrate

Net EHs

33

BTCs Locked

Locked in 2WP

2,033 RBTC

Switch Dark / Light Theme

Transactions

	TRANSACTIONS		TX VALUE		TX HASH
	2	☰	.01 RBTC	☁	0x297c..34ed

: Hash	Miner	TX Hash	Block	From	To
.0253	0x8A..CC3e07	0x297..c134ed	3,470,268	0x000000..0000	0x0000..000008

EN

Dashboard

Prices $

Liquidity Pools ⬡

Blocks ⬡

Transactions ⤬

Addresses @

Nodes ⬚

Tokens ⑂

Stats ∿

Block Details

Address Details

Transaction Density
Transactions Per Block

3

Hashrate
Net EHs

33

BTCs Locked
Locked in 2WP

2,033 RBTC

Blocks

☰	CURRENT BLOCK **3,470,244**	☁	TRANSACTIONS **2**

Height	Transactions	Block Hash	Miner
3,470,244	2	0x37..0253	0x8A..CC3e07
3,470,243	5	0x37..0253	0x8A..CC3e07
3,470,242	3	0x37..0253	0x8A..CC3e07

Transactions

☰	TX VALUE **.01 RBTC**	☁	TX HASH **0x297c..134ed**

TX Hash	Block	From	To
0x297..c134ed	3,470,268	0x000000..0000	0x0000..000008
0x397..c112bf	3,470,268	0x000000..0000	0x0000..000008
0x297..a124ea	3,470,268	0x000000..0000	0x0000..000008

RSK EXPLORER

💬 Support Chat

PySOVRYN

chainhaus
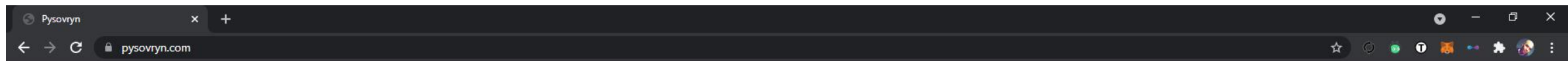
pysovryn.com

```
pip install pysovryn
```

chainhaus

```
n = RSKNode()
n.current_block()

Output:
3530628
```

```python
sov_lp = LiquidityPool('SOV')
```

```
sov_lp.balances()
```

Output:
Contract Balance 517639.12204661
Staked Balance 517639.12204661
rBTC Contract Balance 147.34258005
rBTC Staked Balance 147.34258005

chainhaus

```
sov_lp.history()
```

chainhaus

{'supply': '127078202', 'supply_apr': '746676', 'borrow_apr': '104342385', 'timestamp': '2021-07-05T00:00:46.000Z'}
{'supply': '77078209', 'supply_apr': '1231039', 'borrow_apr': '107159253', 'timestamp': '2021-07-05T06:00:19.000Z'}
{'supply': '77078222', 'supply_apr': '1231039', 'borrow_apr': '107159253', 'timestamp': '2021-07-05T18:02:09.000Z'}
{'supply': '35967877', 'supply_apr': '2638084', 'borrow_apr': '115342090', 'timestamp': '2021-07-06T00:00:03.000Z'}
{'supply': '35967883', 'supply_apr': '2638084', 'borrow_apr': '115342090', 'timestamp': '2021-07-06T06:01:20.000Z'}
{'supply': '36681994', 'supply_apr': '2586727', 'borrow_apr': '115043415', 'timestamp': '2021-07-06T12:00:00.000Z'}
{'supply': '36682000', 'supply_apr': '2586727', 'borrow_apr': '115043415', 'timestamp': '2021-07-06T18:00:00.000Z'}
{'supply': '36682007', 'supply_apr': '2586726', 'borrow_apr': '115043408', 'timestamp': '2021-07-07T00:00:00.000Z'}
{'supply': '36682013', 'supply_apr': '2586726', 'borrow_apr': '115043408', 'timestamp': '2021-07-07T06:00:00.000Z'}
{'supply': '36682020', 'supply_apr': '2586726', 'borrow_apr': '115043408', 'timestamp': '2021-07-07T12:00:00.000Z'}
{'supply': '31743484', 'supply_apr': '2989159', 'borrow_apr': '117383802', 'timestamp': '2021-07-07T18:00:00.000Z'}
{'supply': '31743490', 'supply_apr': '2989159', 'borrow_apr': '117383802', 'timestamp': '2021-07-08T00:00:00.000Z'}
{'supply': '31743497', 'supply_apr': '2989159', 'borrow_apr': '117383802', 'timestamp': '2021-07-08T06:00:00.000Z'}
{'supply': '31743503', 'supply_apr': '2989159', 'borrow_apr': '117383802', 'timestamp': '2021-07-08T12:00:00.000Z'}
{'supply': '32061749', 'supply_apr': '2959486', 'borrow_apr': '117211237', 'timestamp': '2021-07-08T18:00:00.000Z'}
{'supply': '32061756', 'supply_apr': '2959486', 'borrow_apr': '117211237', 'timestamp': '2021-07-09T00:00:00.000Z'}
{'supply': '32061762', 'supply_apr': '2959486', 'borrow_apr': '117211237', 'timestamp': '2021-07-09T06:00:00.000Z'}
{'supply': '32061769', 'supply_apr': '2959486', 'borrow_apr': '117211237', 'timestamp': '2021-07-09T12:00:00.000Z'}
{'supply': '32061775', 'supply_apr': '2959484', 'borrow_apr': '117211225', 'timestamp': '2021-07-09T18:00:00.000Z'}
.
.
.
{'supply': '32062669', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-15T18:00:00.000Z'}
{'supply': '32062675', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-16T00:00:00.000Z'}
{'supply': '32062682', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-16T06:00:00.000Z'}
{'supply': '32062688', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-16T12:00:00.000Z'}
{'supply': '32062695', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-16T18:00:00.000Z'}
{'supply': '32062701', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-17T00:00:00.000Z'}
{'supply': '32062708', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-17T06:00:00.000Z'}
{'supply': '32062714', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-17T12:00:00.000Z'}
{'supply': '32062721', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-17T18:00:00.000Z'}
{'supply': '32062727', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-18T00:00:36.000Z'}
{'supply': '32062734', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-18T06:00:00.000Z'}
{'supply': '32062740', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-18T12:00:01.000Z'}
{'supply': '32062747', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-18T18:00:00.000Z'}
{'supply': '32062753', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-19T00:00:00.000Z'}
{'supply': '32062760', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-19T06:00:00.000Z'}
{'supply': '32062766', 'supply_apr': '2959408', 'borrow_apr': '117210785', 'timestamp': '2021-07-19T12:00:00.000Z'}
{'supply': '32062773', 'supply_apr': '3297468', 'borrow_apr': '120332453', 'timestamp': '2021-07-19T18:00:00.000Z'}

```
sov_lp.chart_history()
```

chainhaus
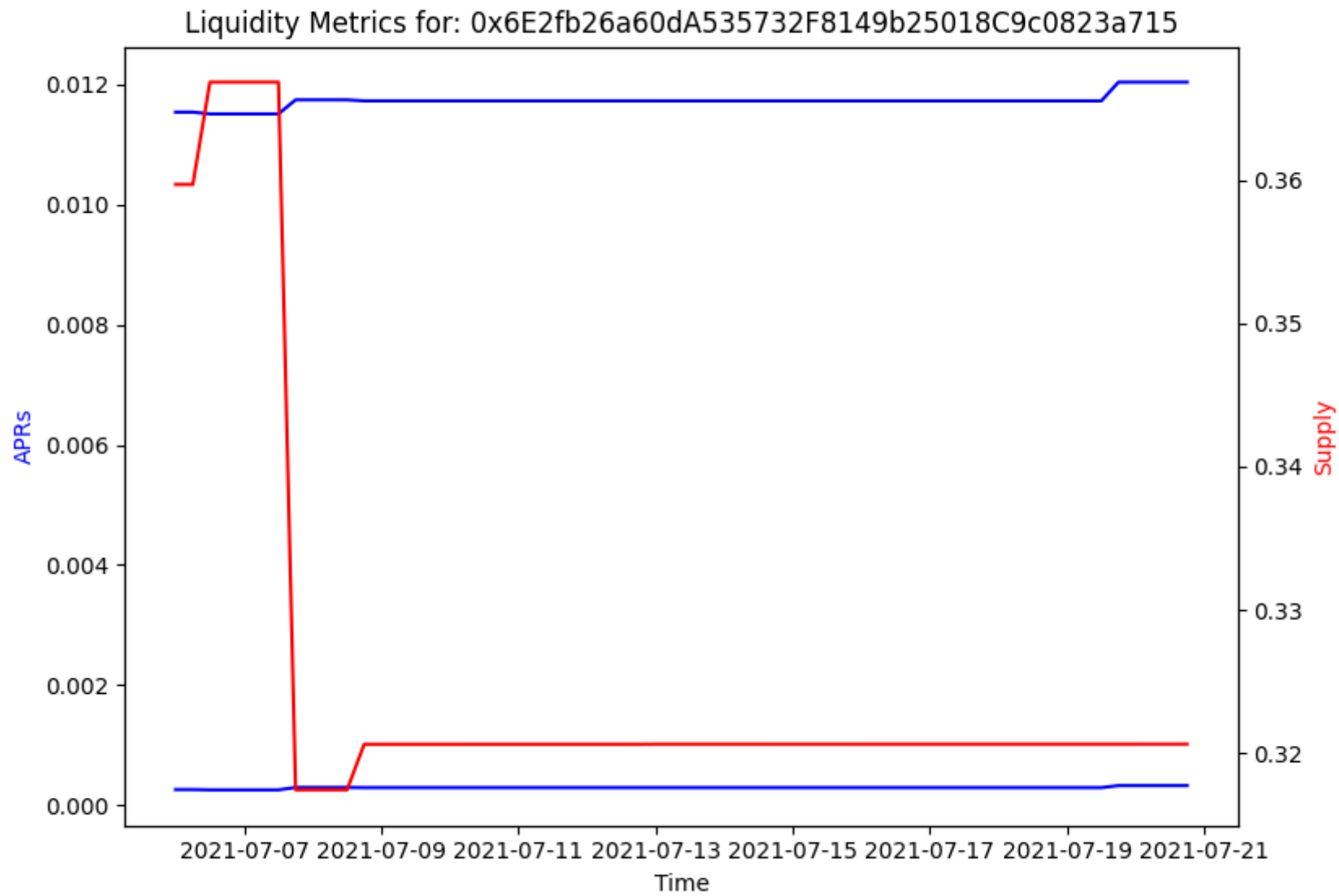
The use of **PySOVRYN** will unveil data science techniques and opportunities that can then be incorporated into the block explorer

chainhaus

Key Challenges

Still getting used to RSK / SOVRYN ecosystem

Still learning where all data is residing and what APIs exist

chainhaus

Next Steps

Continue to build a world class explorer
and data analytics toolkit

chainhaus

Thank **you** & Q&A

chainhaus