

# BitShares hackathon

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# Overview

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- explore the blockchain
  - what is BitShares?
  - wallets / block explorers / network status
- develop for the blockchain
  - backend development
  - frontend development
  - feed scripts
  - trading bots
- get paid by the blockchain!



Exploring the blockchain



# What is BitShares? - history

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- Protoshares: the theory of sharedrop and social contract
- BitSharesX: first DAC by Daniel Larimer implementing a decentralized exchange of market-pegged and user-issued assets
- BitShares 2.0: lessons learnt, full rewrite of the base framework which implements an efficient blockchain toolkit that anyone can use: Graphene is born

<https://github.com/bitshares/bitshares-core>

<https://github.com/bitshares/bitshares-ui>



# BitShares technology

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- easy to remember user names
- hierarchical, multi-sig access control
- market-pegged assets aka Smartcoins: BitUSD, BitBTC, etc.
- user-issued assets
- decentralized asset exchange
- It's fast! 3s block time, 3'000 tx / sec

<https://docs.bitshares.org/>

# Actors, roles and responsibilities

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- **witnesses:** block producers and feed publishers
  - DPoS based, ~25 witnesses (dynamic)
  - feed publishing act as oracle for MPAs on the blockchain
- **committee members**
  - vote on blockchain parameters (block size, fees, etc.)
- **workers**
  - propose some work to be done, get voted on
- **proxies**
  - users can vote through a proxy to alleviate voter apathy

# BitShares binaries / clients

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- **witness\_node** daemon: main server, communicates using JSON-RPC over WebSockets
- **cli\_wallet** client: command-line interface that also offers a more user-oriented JSON-RPC API over HTTP, thin layer that communicates with the witness\_node
- **web wallets / light wallets / mobile wallets:** graphical user interfaces that communicate with witness\_node, usually remote

# Wallets - web wallets

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- <https://bitshares.org/wallet/>
- <https://wallet.bitshares.eu/>
- <https://openledger.io/>
- <https://market.rudex.org/>
- <https://bit.btsabc.org>
- <https://www.hellobts.com/>
- <https://crypto-bridge.org/>
- <https://www.freedomledger.com/>
- <https://btsgo.net>
- <https://trade.1001ico.com>



# Wallets - light wallets

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- <https://bitshares.org/download/>
- <https://github.com/bitshares/bitshares-ui/releases>
- <https://github.com/blckchnd/rudex-ui/releases>

# Wallets - mobile wallets

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- Smartcoins wallet (@kencode)
  - <https://play.google.com/store/apps/details?id=de.bitsharesmunich.smartcoinswallet&hl=en>
- BitShares wallet (BitUniverse)
  - <https://play.google.com/store/apps/details?id=com.bitshares.bitshareswallet>
- <https://www.magicw.net>
- <https://door.one/en/>



# Block explorers

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- <http://cryptofresh.com> (@roadscape)
  - main block explorer
- <https://bitshares.org/wallet> and other web/light wallets
  - cog icon > explore
- <http://bitshares-explorer.io/> (@oxarbitrage)
  - WIP, open-source alternative to cryptofresh



# Network status

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- <http://stats.bitshares.eu> (@xeroc)
  - network speed and congestion monitor
- <http://status.bitsharesnodes.com> (@wackou)
  - curated list of public seed nodes
- <http://seeds.quisquis.de/bitshares.html> (@pc)
  - dynamically crawled list of network nodes

Developing for the blockchain



# Backend development

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- PyBitShares (@xeroc) <http://docs.pybitshares.com/>  
<https://github.com/xeroc/python-bitshares/>
  - http and ws calls
  - wallet management
  - transaction building and signing
- Uptick (@xeroc) <http://uptick.rocks>
  - user-friendly command line tools
- bts\_tools (@wackou) [https://github.com/wackou/bts\\_tools](https://github.com/wackou/bts_tools)
  - monitoring tools for witnesses and seed/api nodes
  - feed publishing
  - notification via email and Telegram

# Frontend development

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- <https://github.com/bitshares/bitshares-ui>
- <https://github.com/bitshares/bitsharesjs>
- <https://github.com/bitshares/bitsharesjs-ws>
  - official wallet and corresponding base JS libraries
- <https://github.com/Agorise/graphenej> (@kencode)
  - Android development

# Feed scripts

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- <https://github.com/xeroc/bitshares-pricefeed> (@xeroc)
- [https://github.com/wackou/bts\\_tools](https://github.com/wackou/bts_tools) (@wackou)
- <https://pypi.python.org/pypi/btsprice> (alt)



# Trading bots

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- <https://github.com/xeroc/stakemachine> (@xeroc)
- <https://github.com/pch957/pybtsbots-2015> (@alt)
- <https://github.com/bitcrab/transbot> (@bitcrab)
- <https://steemit.com/bitshares/@linouxis9/liqbot-0>  
(@linouxis9)

Getting paid by the blockchain!



# The prize!

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- Best project gets a prize of 1111 BitUSD
- Funded by the blockchain itself via @roelandp's proposal
- Present your project on Friday 2pm at Lisbon Secret Spot, Montes Claros

# Thanks, and happy hacking!

Slides available at:

[https://github.com/wackou/slides/steemfest2\\_hackathon.pdf](https://github.com/wackou/slides/steemfest2_hackathon.pdf)

