

A Blockchain World

Intro to blockchain concepts, bitcoin, ethereum and ethereum wallets





About this course

Course content and goals



Homework and Further reading



Gitter and interaction



bit.ly/LimeGitter



Intro to blockchain

What, Why and When?



What is blockchain?

- Network append-only ledger copies
- Immutable “Linked-list” of blocks
- Synchronising the copies through a consensus algorithm



Why blockchain?

- Trust through decentralisation
- Removing the middleman
- Verifiable truth through cryptography
- Practically no down-time
- Economically incentivised security



Block Properties

- List of transactions
- Link to the previous block - parent hash
- Nonce
- Block hash



Consensus Algorithm

- Proof of Work - PoW
- Proof of Stake - PoS
- Proof of Authority - PoA
- Delegated Proof of Stake - DPoS



Ethereum



Smart contracts

What are they and why are they cool?



EVM



Solidity & Vyper



Gas



Notable Ethereum Networks



Mainnet



Ropsten



Rinkeby



Wallets



What are wallets

- Public & Private key pair
- Elliptic curve
- Signing mechanism
- What actually is your balance?



Metamask



MyEtherWallet



Further reading

- How does blockchain work - https://www.youtube.com/watch?v=SSo_ElwHSd4
- Ethereum yellow paper - <https://github.com/ethereum/yellowpaper>
- Proof of Work - <https://www.youtube.com/watch?v=9V1bipPkCTU>
- Ropsten ETH Faucet - <https://faucet.metamask.io>
- Rinkeby ETH Faucet - <https://faucet.rinkeby.io>
- My Ether Wallet - <https://www.myetherwallet.com>



Homework

- Create Ropsten and Rinkeby wallets
- Get 1 Ropsten ETH in your wallet from the faucet
- Get 1 Rinkeby ETH in your wallet from the faucet
- Send half of it to any random address like
(0xe42682eEa1DFC432C2fF5a779CD1D9a1e1c7f405) through My Ether Wallet
- Send the transaction in Gitter



Q & A