

# BUILDING BLOCKS OF BLOCKCHAIN

KYLE VOGT

# WHO AM I?

- FULL STACK WEB DEVELOPER AT BERKSHIRE HATHAWAY TRAVEL PROTECTION
- R/C VEHICLES
- 3D PRINTING
- ROCKET LEAGUE
- CRYPTOCURRENCY









# DISCLAIMER

- I AM NOT AN EXPERT, I JUST GOOGLED STUFF
- I AM NOT A FINANCIAL ADVISOR



HAVE YOU HEARD OF....

# WHY BLOCKCHAIN?





# WHY BLOCKCHAIN

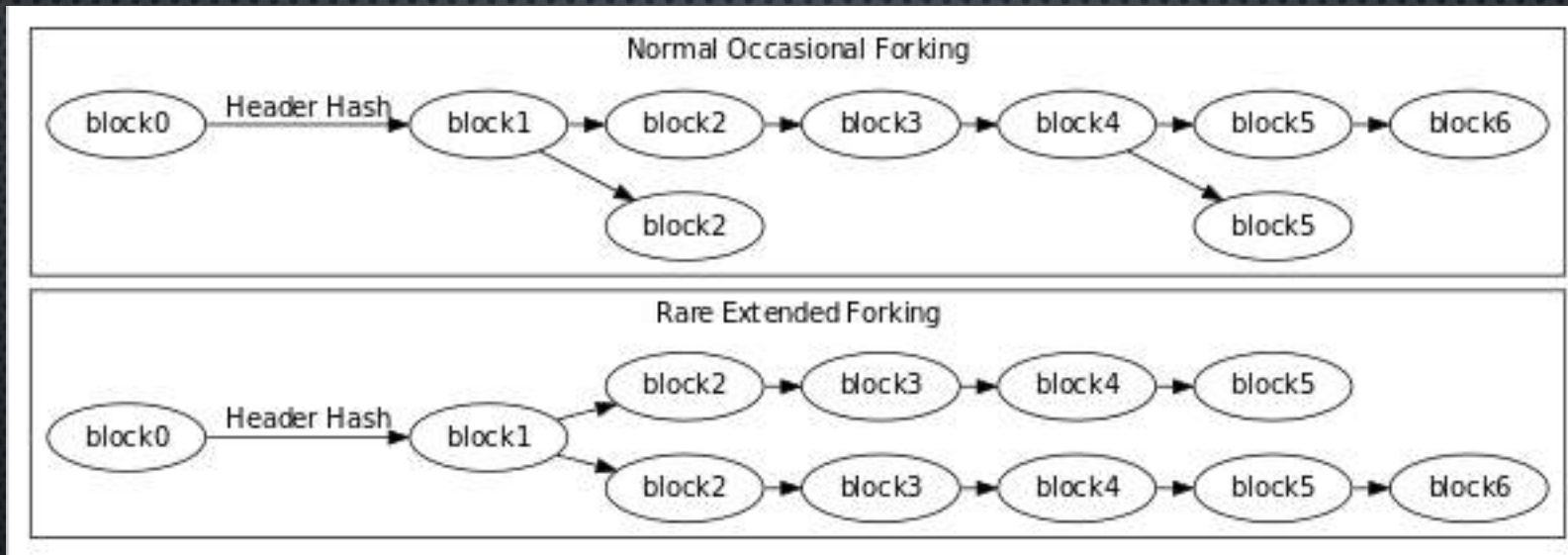
- DISTRIBUTED
- DECENTRALIZED
- TRUST(LESS)



# TRUST

- PUBLIC/PRIVATE KEY CRYPTOGRAPHY
- CONSENSUS PROTOCOLS
  - PROOF OF WORK (POW)
  - PROOF OF STAKE (POS)

# A LINKED LIST WITH EXTRA STEPS





# PROOF OF WORK

- “MINERS” VERIFY TRANSACTIONS THEN BRUTE FORCE A PROBLEM
- FIRST MINER TO SOLVE THE PROBLEM “MINES” THE BLOCK
- DOUBLE SPENDING OR OTHERWISE FRAUDING REQUIRES 51% OF THE NETWORK
- MORE PROFITABLE TO MINE THAN TRY AND FRAUD THE NETWORK
  - BLOCK REWARD
  - TRANSACTION FEES

# PROOF OF STAKE

- "FORGERS" STAKE COINS IN AN "ESCROW" TYPE ACCOUNT
- VALIDATING AN INVALID TRANSACTION FORFEITS YOUR STAKED COINS
- RANDOMIZED BLOCK SELECTION
- COIN AGE SELECTION
- FORGERS ARE PAID TRANSACTION FEES, OR NEW COINS MAY BE "MINTED"
- NO SPECIFIC WAY TO DETERMINE INITIAL COIN SUPPLY
- WAY MORE POWER EFFICIENT



# "SMART" CONTRACTS

- WAY SLOWER THAN TRADITIONAL COMPUTATION
- FAULT TOLERANT
- ZERO DOWNTIME
- CENSORSHIP RESISTANT
- PERMANENT RECORD
- CRYPTO KITTIES



QUESTIONS?





PayCon



Trade

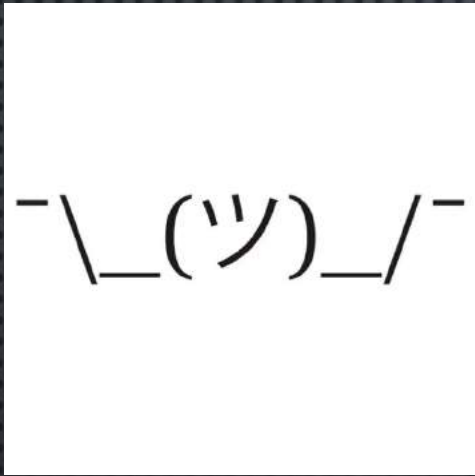


Doge Coin



Pun Coin





Shrug Coin



Monacoin



Putin Coin



Kim Jong Un Coin



