Wtf are based rollups and preconfs?

(And why they're awesome)

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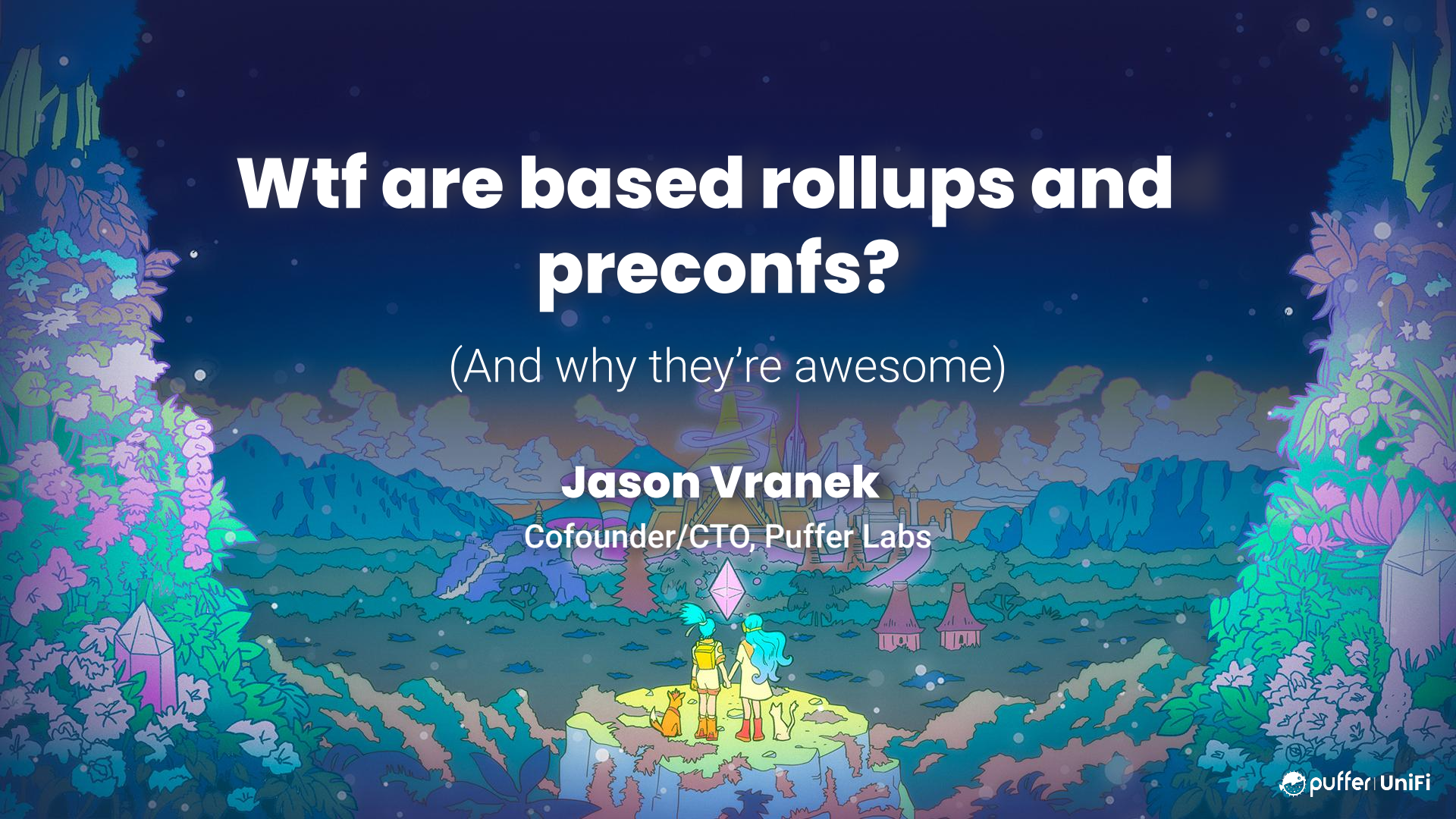

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how did we get here?

how did we get here?

- gas is too expensive
  - rollup-centric roadmap
    - off-load execution to L2s
      - gas is cheaper, TPS increases
        - ETH is dead…?

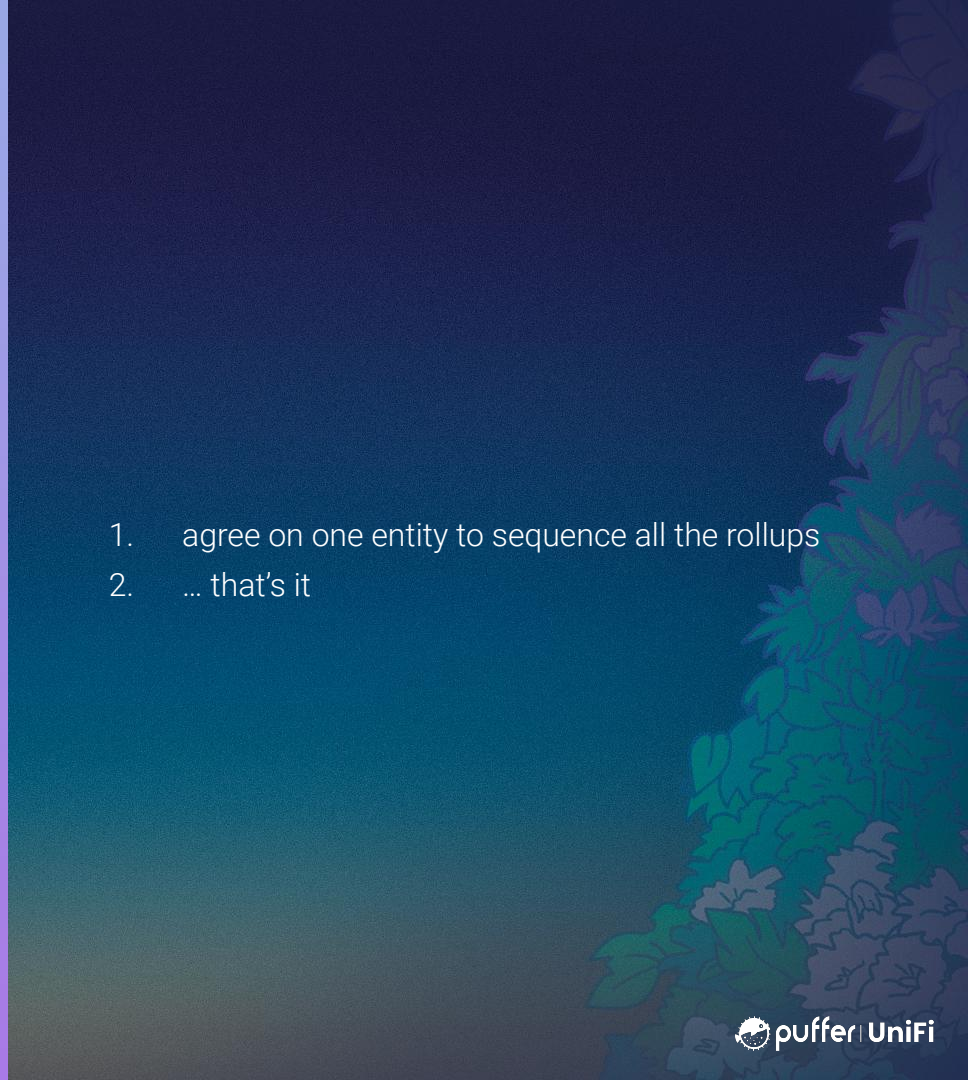
what's the deal?

- L2s are not interoperable
  - fragmented liquidity
  - fragmented users
- developers need to
  - pick a winning chain/ecosystem
  - deploy across many chains
- ETH has lost value
  - DA fees are [temporarily] low
  - execution is where the money is
  - issuance has increased
- "intraop" is coming instead of "interop"

this is a *negative-sum* game

how to fix fragmentation?

1. agree on one entity to sequence all the rollups
2. … that's it



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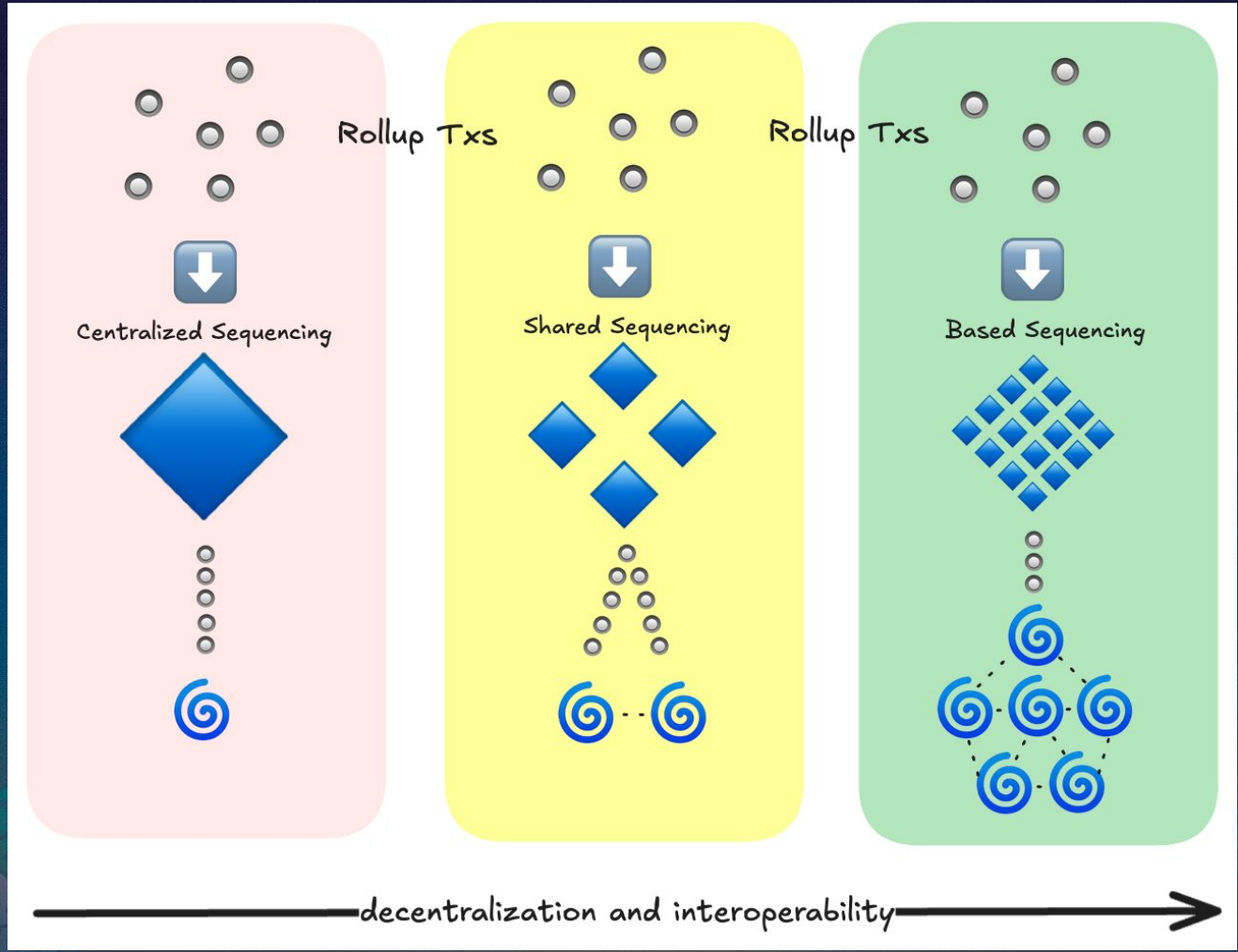
based rollups

wtf are based rollups?

“A rollup is said to be based, or L1-sequenced, when its sequencing is driven by the base L1. More concretely, a based rollup is one where the next L1 proposer may, in collaboration with L1 searchers and builders, permissionlessly include the next rollup block as part of the next L1 block.” - Justin Drake

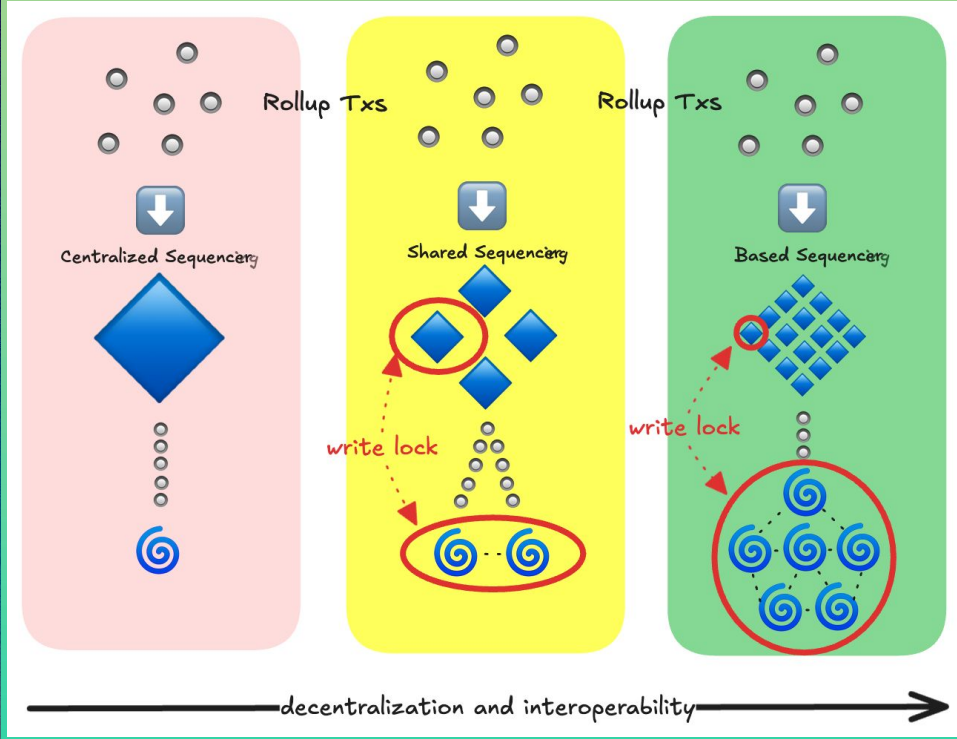


how does it help?

-> L2 interop requires write-locks over L2 state

-> shared sequencing enables this

-> based sequencing is the most credible form



limitations

based rollups have bad UX

what's the problem?

- based sequencing operates at L1 block times
- L2 users don't want to wait 12s tx confirmations
- we don't want to hardfork to reduce slot times
    - centralization vector
    - R&D time
    - client bugs

Enter

- **preconfirmations**

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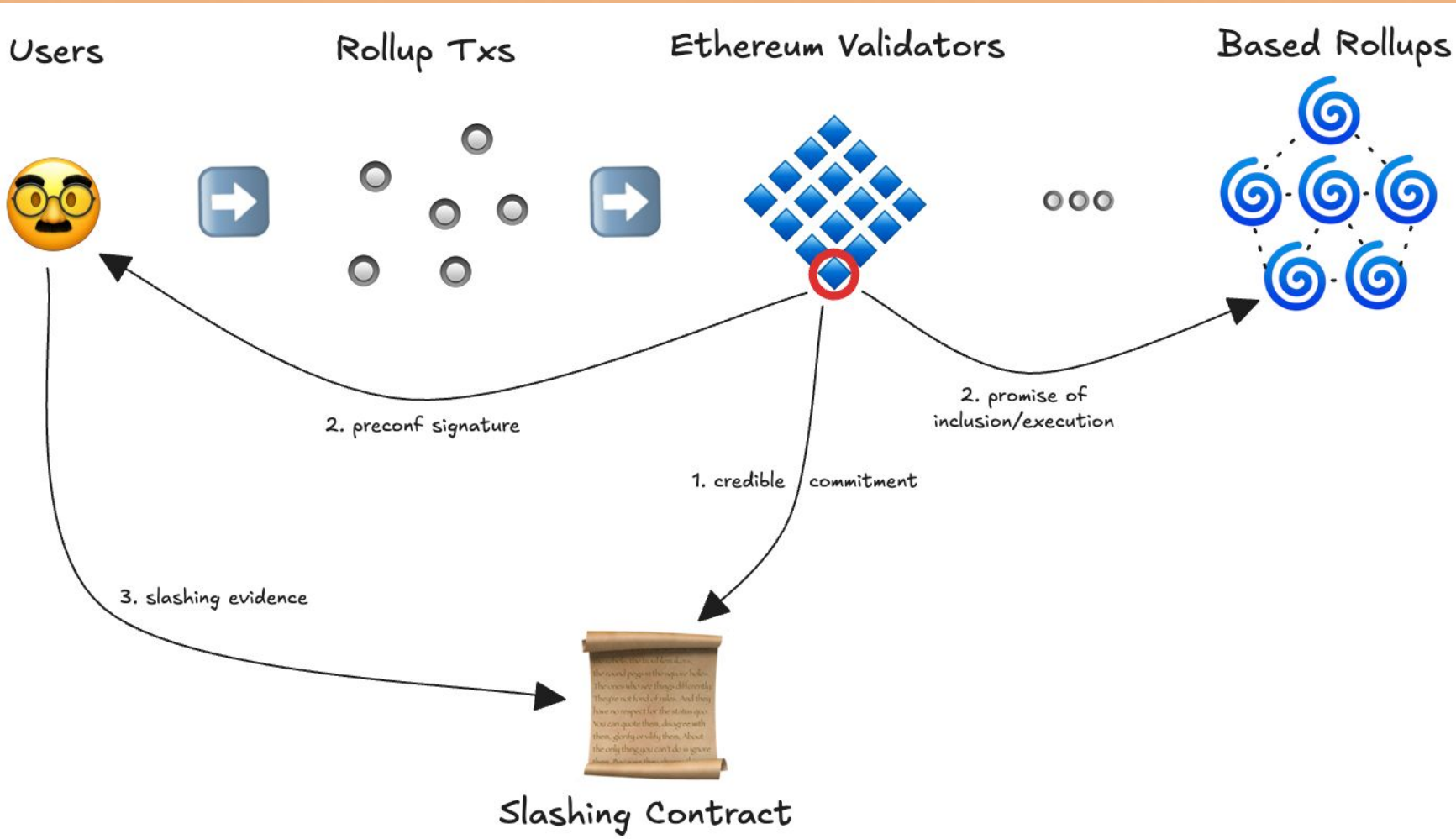
preconfs

preconfs are commitments from validators to users

1. user wants to send a tx
2. validator promises to do **something** when proposing
    a. include the tx
    b. execute with guaranteed post-state
3. user can slash validator who breaks their promise


Users
Rollup Txs
Ethereum Validators
Based Rollups
2. preconf signature
2. promise of inclusion/execution
1. credible commitment
3. slashing evidence
Slashing Contract

we can be faster than solana
(without centralized sequencers)

Thank you!

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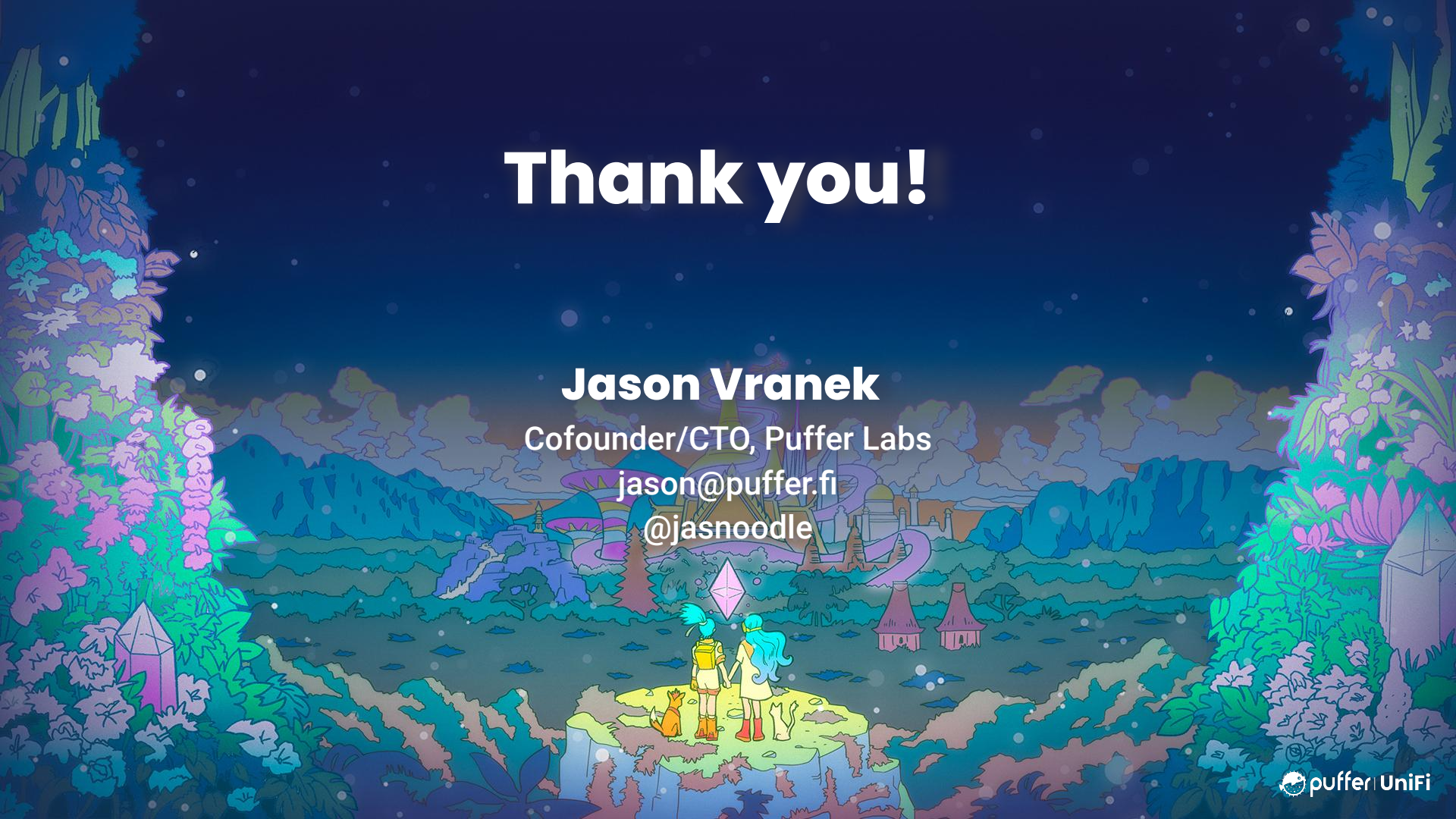

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