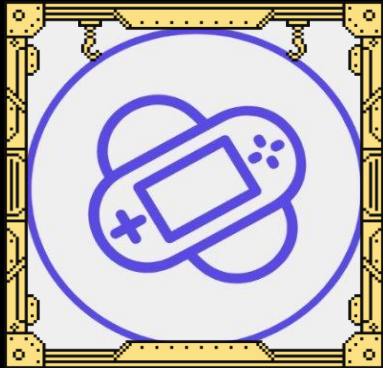




Decentralised and Permissionless: Shorts and Leverage for AMMs



@DaoPlays



@Dave_Kayac

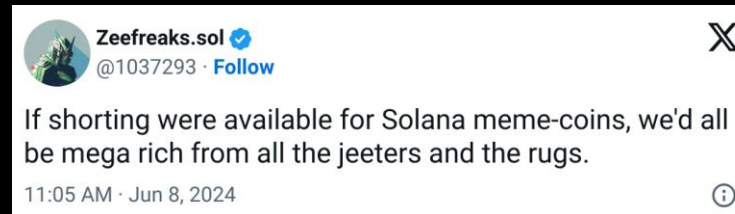


@frnzgs



The Problem

AMMs have been around a long time.. and yet:



Going short or entering leveraged long positions still primarily via centralised exchanges

Decentralised platforms that do offer leverage or shorts are not permissionless – they only provide curated lists of accepted tokens (e.g. flash.trade)



Our Solution

We have built a decentralised, permissionless system for borrowing from an AMM that solves these issues

Demo App running on Solana devnet : <https://www.daoplays.org/bonkathon2024>

Source code for front end: <https://github.com/daoplays/blog/tree/main/components/bonkathon>

Source code for AMM: https://github.com/daoplays/solana_examples/tree/master/shorts

Source code for Options: https://github.com/daoplays/solana_examples/tree/master/options

Slide deck: <https://github.com/daoplays/blog/raw/main/components/bonkathon/Presentation.pdf>



Our Solution

Borrow From The AMM

Long Short

User Balance: 4.954 SOL

AMM Balance: 90000 SPL2

AMM Fee (bps): 100

Borrow Fee (bps): 200

Short:

1000

Deposit:

0.01

Liquidation Price:

4.575e-5

Enter

- AMM allocates fraction of its liquidity to a short base pool and a long quote pool for borrowed positions
- User specifies the deposit they want to pay for the position, setting the amount of leverage
- Larger deposit -> More headroom before position can be liquidated but more capital at risk
- Borrow Fees are annualised – The longer you hold the position the larger the fee. Fees collected when position is exited and go to liquidity providers



Our Solution

ASSET PLUGIN DETAILS

FROZEN

No

IMMUTABLE METADATA

No

ATTRIBUTES AUTHORITY

UPDATEAUTHORITY

ATTRIBUTES

creator: 2BLkynLAWGwW58SLDAnhwsOIuVtzqyfHKA3W3MJFwEF
amm: 4WGUBLYC9eWsZshDKGVmNPpNfY4YQZFTmRLKK6dQQsVq
base_amount: 10000
quote_amount: 35750416
entry_price: 0.000035750416
deposit_amount: 100000000
liquidation_price: 0.000135750416
start_time: 1717858533
direction: short

Powered By Metaplex Core



- When borrowing from the AMM the user receives a core asset as a receipt
- On-chain attributes contain all the metadata describing the position
- Whomever owns that asset can exit the position – they have value and are tradable in their own right!
- Any wallet or marketplace that supports Core will support our borrowed positions out of the box



Our Solution

Liquidation Is Decentralised

- Any user can liquidate a borrowed position once it passes its liquidation price.
- They earn the SOL used as rent for the core asset (~0.0035 SOL per liquidation) as a fee.
- Could provide other platform specific rewards to further engage community

 Solana	+0.00351 SOL
Network	 Solana
Network Fee	\$0.0040



Core Is A Powerful Tool

A screenshot of a mobile application interface for creating an option. The interface has a dark theme with orange and blue accents. It includes fields for 'Available Balance' (19,755.30 SPL2), 'Transfer Fee (bps)' (0), 'Max Transfer Fee (SPL2)' (0), 'Number of Tokens you will sell to option owner' (0), 'Strike price per token' (0), 'Price of the option' (0), and 'Expiry Date' (SAT JUN 08 2024 00:00 GMT+1). A green 'Create' button is at the bottom.

Available Balance: 19,755.30 SPL2

Transfer Fee (bps): 0

Max Transfer Fee (SPL2): 0

Number of Tokens you will sell to option owner: 0

Strike price per token: 0

Price of the option: 0

Expiry Date: SAT JUN 08 2024 00:00 GMT+1

Create

Options Trading Program

- Core asset encodes a Call or Put option
- Option metadata stored as on-chain attributes
- Owner can execute it at any point
- Can be traded on any Core supported marketplace
- After expiry creator can reclaim assets in escrow.



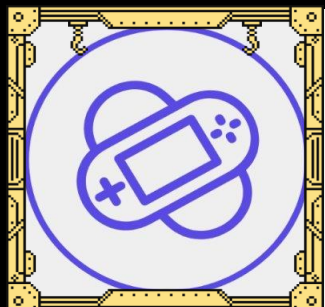
Path To Market



- Initial launch of both options and leveraged trading on MemeFi platform Let's Cook.
- Invite selected DeFi influencers, Developers, and Early Adopters to test the platform and provide feedback.
- Refine product and build initial trust within Let's Cook community
- Provide additional rewards (e.g. \$SAUCE) for liquidators and liquidity providers on Let's Cook to bootstrap AMM pools - similar to platforms like Meteora.
- Partnerships with existing DeFi Projects (BonkSwap, Flux, Raydium etc) to bring leveraged trading to their platforms



The Team



@DaoPlays

- Runs a Solana dev blog at daoplays.org started in 2022
- Developing Solana meme coin token/hybrid launchpad letscook.wtf
- Built crypto projects include push-your-luck dungeon game sol-dungeon.com
- Ph.D. in Astrophysics from Cambridge University with 5000+ citations from published papers and now works in quantitative TradFi.



@DaveR

- Contributing to the Solana ecosystem since late 2021. The first NFT I owned I made myself on SolanArt.
- Established a Solana community and crowdfunded a validator in 2022 (Sentries).
- Has won Solana Hackathon prizes (Gaming) and Honorable Mentions (Consumer).
- Lawyer. Operates own legal office.



@frngs

- Frontend Developer and Technical Project Manager with 4+ years of experience leading cross-functional teams.
- Founded Deez Jobs (deezjobs.xyz), a decentralized freelancing platform built on the Solana blockchain, and Coterie Labs (coterie-labs.gitbook.io), a web/software design and development solutions.



Many Thanks to the organizers!
We look forward to the next

BONKATHON!!!