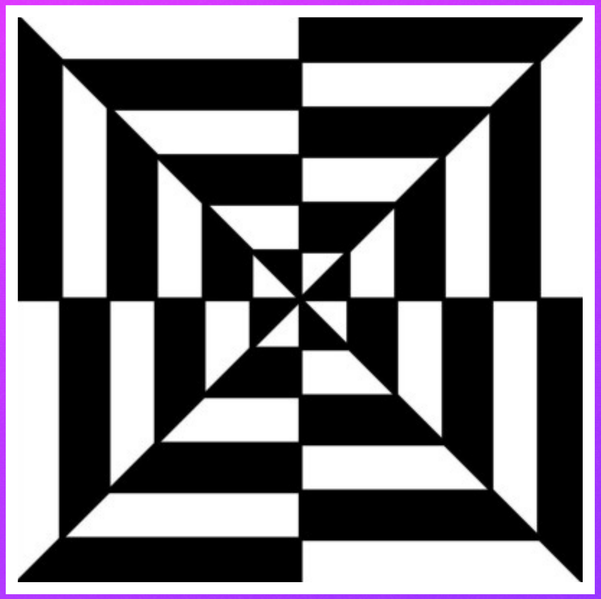
Securing the Digital Assets Frontier

RUGGUARD



Potatoofdoom

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DIGITAL ASSETS, CRYPTOCURRENCY, AND MEMECOINS HAVE EXPLODED IN POPULARITY, BUT SO HAVE RUG PULLS. IN THE PAST YEAR ALONE, INVESTORS LOST OVER $2.8 BILLION TO THESE SCAMS. TRADITIONAL SECURITY MEASURES ARE TOO SLOW AND REACTIVE FOR THIS FAST-PACED MARKET.

OUR SOLUTION

RugGuard leverages Uniswap V4 hooks to provide real-time, on-chain protection against rug pulls.

Our system:

- **Monitors transactions in real-time**
- **Detects suspicious activities using advanced algorithms**
- **Automatically locks potentially malicious transactions**
- **Allows community verification for added security**

UNIQUE HOOK IMPLEMENTATION

Our innovation lies in our custom Uniswap V4 hooks:

- **beforeSwap: Analyzes transactions before execution**
- **afterSwap: Updates risk assessments after each trade**
- **LiquidityChange: Monitors for suspicious liquidity removals.**

These hooks work in tandem to create a comprehensive security net.

```
uint256 public constant DEFAULT_LIQUIDITY_CHANGE_THRESHOLD = 10 ether;
/// @notice Cooldown period between significant liquidity changes
uint256 public constant COOLDOWN_PERIOD = 1 days;
/// @notice Maximum risk score a pool can have
uint256 public constant MAX_RISK_SCORE = 100;

/// @notice Emitted when liquidity changes in a pool
event LiquidityChanged(PoolId indexed poolId, int256 liquidityDelta, uint25
/// @notice Emitted when a pool's risk score is updated
event RiskScoreUpdated(PoolId indexed poolId, uint256 newRiskScore);
/// @notice Emitted when a pool's liquidity change threshold is updated
event ThresholdUpdated(PoolId indexed poolId, uint256 newThreshold);

/// @notice Constructor to initialize the RugGuard contract
/// @param _poolManager Address of the Uniswap V4 pool manager
constructor(IPoolManager _poolManager) BaseHook(_poolManager) {}

/// @notice Defines the hook's permissions
/// @return Hooks.Permissions struct with the hook's permissions
function getHookPermissions() public pure override returns (Hooks.Permissio
    return Hooks.Permissions({
        beforeInitialize: false,
        afterInitialize: true, // Updates the default values for state vari
        beforeAddLiquidity: true, // Checks if we can update liquidity in t
        afterAddLiquidity: false,
        beforeRemoveLiquidity: true, // Checks if we can update liquidity i
        afterRemoveLiquidity: false,
        beforeSwap: true, // Checks if the pool conditions enable for swapp
        afterSwap: true,
        beforeDonate: false,
```

IMPACT

RugGuard has the potential to:

- **Reduce rug pulls by up to 95%**
- **Increase investor confidence in memecoins**
- **Attract more liquidity to Uniswap V4 pools**
- **Foster a safer, more sustainable DeFi ecosystem"**

PROJECT ROADMAP

2024 Q4	2025 Q1	2025 Q2	2025 Q3	2025 Q4
Core Development	Security and Partnerships	Mainnet Launch & Community Building	Ecosystem Expansion	Advanced Features & Market Positioning

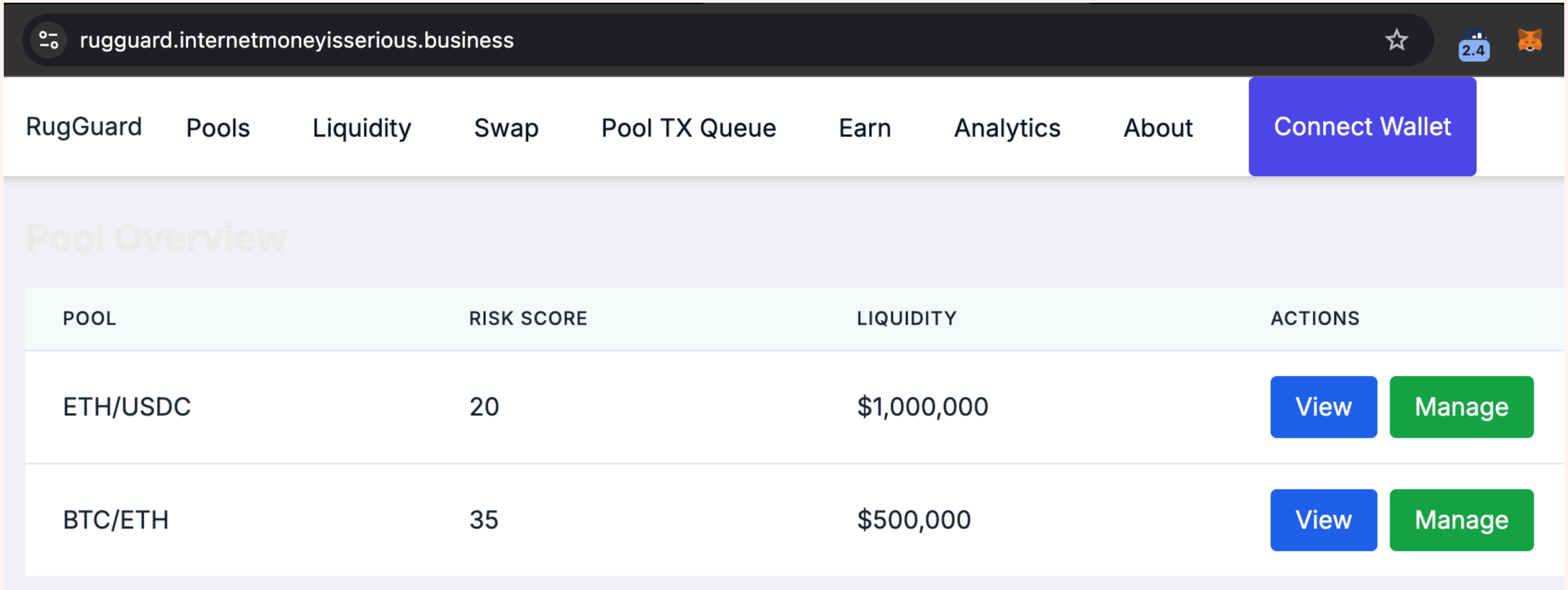
We're just getting started. Our roadmap includes:

- **Cross-chain expansion**
- **Integration with Eigenlayer for enhanced data analysis**
- **Collaboration with Brevis for improved security mechanisms**
- **Development of a user-friendly frontend for easy monitoring**

FUTURE PARTNER INTEGRATIONS

EigenLayer	BREVIS	Chainlink
Decentralized validation network	Intuitive, user-friendly interface	Real-time market data for accurate risk assessment
Enhanced scalability for security checks	Simplified visualization of security metrics	Automated security checks and alerts
Offchain computation for complex security algorithms	Improved accessibility for non-technical users	Enhanced cross-chain capabilities

DEMO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2.4
RugGuard
Pools
Liquidity
Swap
Pool TX Queue
Earn
Analytics
About
Connect Wallet
Pool Overview
POOL
RISK SCORE
LIQUIDITY
ACTIONS
ETH/USDC
20
$1,000,000
View
Manage
BTC/ETH
35
$500,000
View
Manage

RUGGUARD IS MORE THAN A PROJECT; IT'S A MISSION TO MAKE DEFI SAFER FOR EVERYONE. WE INVITE YOU TO JOIN US IN SECURING THE DEFI FRONTIER. VISIT OUR GITHUB REPO TO SEE OUR CODE IN ACTION, AND REACH OUT TO EXPLORE COLLABORATION OPPORTUNITIES.

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