Decentralized Credit Scoring for Web3 Trust

Turning on-chain behavior into verifiable, privacy-preserving credit scores.

The Problem
Gap in Web3 Finance

Impact:

Billions in DeFi remain inaccessible for responsible users

No universal, trusted credit score for on-chain users.

Lending requires high collateral → limits access.

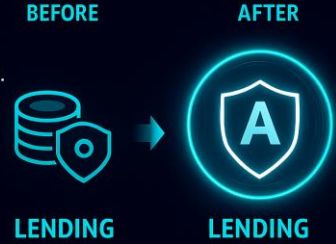Sybil attacks & spam degrade governance.

HIGH COLLATERAL

LOW PARTICIPATION

Key Use Case:

CredTrust Protocol

Converts on-chain & off-chain behavior into verifiable crypto credit scores.

Fully transparent, recalculatable by anyone.

Privacy-preserving with ZK proofs.

BEFORE

AFTER

LENDING

LENDING

A

AAA

Under-Collateralized Lending
Better rates for trustworthy users.

Sybil-Resistant Governance
Fair DAO voting.

Risk-Based Yield
Rewards based on trust score.

On-Chain Identity
Verify user authenticity.

Verify user
authenticity.

Credit Delegation
Share creditworthiness with others.

Under-Collateralized Lending
Share creditworthiness. with others.

How It Works — Architecture
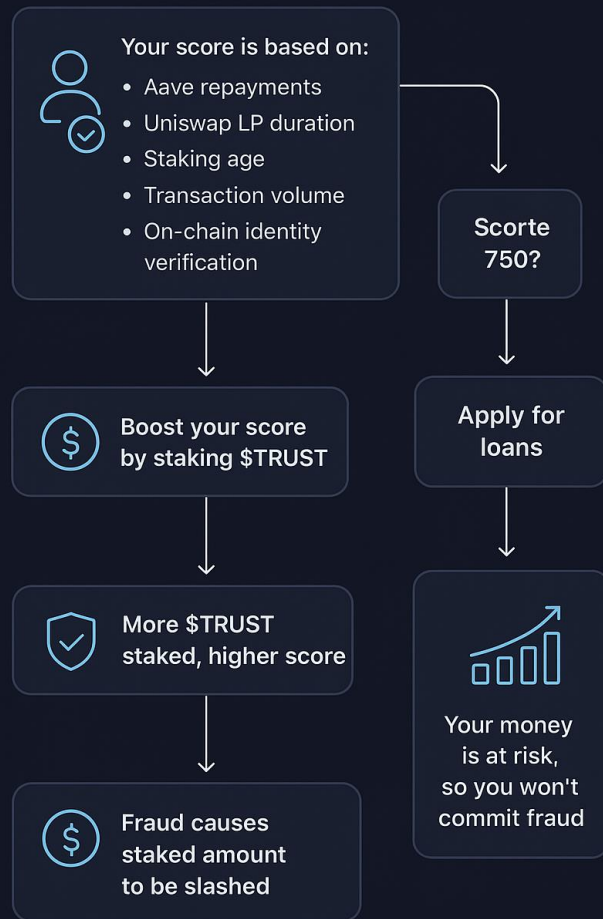
1. **User Score Calculation** – Based on:
   1. Aave repayment history
   2. Uniswap LP holding duration
   3. Staking age
   4. Transaction volume
   5. On-chain identity verification
2. **Loan Eligibility**
   1. **Score ≥ 750** → Eligible to apply for loans
   2. **Score < 750** → Redirected to a "How to Improve Score" page
3. **Improving Score via $TRUST Staking**
   1. Stake **$TRUST** (platform's native token) to increase your score
   2. $TRUST can be swapped using ETH (Sepolia testnet)

Your score is based on:
- Aave repayments
- Uniswap LP duration
- Staking age
- Transaction volume
- On-chain identity verification

Scorte 750?

Boost your score by staking $TRUST

Apply for loans

More $TRUST staked, higher score

Your money is at risk, so you won't commit fraud

Fraud causes staked amount to be slashed

How it Works

Demo :

CredTrust
Sepolia • Aave + Uniswap • TRUST

499000.01 TRUST   Connected: 0xeB4F...F3A8

Your Score

813   / 900   Excellent

Score: 90%

Remaining: 10%

■ Remaining ■ Score

Computed from Aave repayments, Uniswap LP duration, staking age, transaction volume, and on-chain identity verification.

View IPFS JSON   Recalculate Score

Your Attestations
Total Staked: 0.0 TRUST

No active attestations

Stake TRUST   Unstake All

Why $TRUST Staking Works
Mechanism:
•The more you stake, the higher your score
•Staked funds act as **collateral against fraud**
•If fraudulent activity occurs → **staked amount is slashed**
•Since your own money is at risk, it discourages bad actors
Benefit:
•Encourages honest repayment and behavior
•Builds trust in lending without over-collateralization

Credit Score Education
Understand how your credit score is calculated and how to improve it

← Back to Dashboard

Score Factors   Improve Your Score   FAQ

How Your Score is Calculated

Your CredTrust score is calculated using on-chain data from various DeFi protocols. Each factor contributes differently to your overall score (out of 900).

Aave Repayment History   40% Weight

Tracks your repayment consistency on Aave loans. Consistent, on-time repayments boost your score significantly.

Uniswap LP Duration   30% Weight

Measures how long you've provided liquidity in Uniswap pools. Longer commitments demonstrate stability.

Staking History   20% Weight

Evaluates your staking duration and consistency across protocols. Shows long-term commitment to the ecosystem.

Available Loans
Browse and apply for under-collateralized loans based on your credit score

← Back to Dashboard

1.0 ETH Loan	Uncollateralized		5.0 ETH Loan	Collateralized
5% APR			**3% APR**	
Duration	30 days		Duration	90 days
Min. Credit Score	700		Min. Credit Score	700
Collateral Required	No		Collateral Required	Yes
Apply Now			Apply Now	

How It Works

1
Check Eligibility
Ensure your credit score meets the minimum requirements for the loan product

2
Apply
Submit your application with a single click - no paperwork needed

3
Receive Funds
Get funds directly to your wallet upon approval in minutes

Tech Stack

- Ethereum,

- The Graph (indexing)

- Chainlink Oracles

- IPFS / Filecoin

- ZK-SNARKs (Circom)

- Snapshot (DAO)

- Next.js, Ethers.js, Web3Modal

Why It Works

Transparency — scores & formulas public

Trust minimized — no central authority

Behavioral incentives for good actors

Composable across DeFi & DAOs

CREDTRUST
PROTOCOL

Team : CTRL ESC

BVCOE

CredTrust