AztecExplorer

- by the Starkscan team

Contact Details

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Summary

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As Aztec is approaching a public testnet, there is a need for a block explorer to allow participants to inspect the Aztec blockchain. This explorer will be called the AztecExplorer

For developers

, AztecExplorer will accelerate development cycles and the feedback loops by visualizing their code and deployments on the chain.

For analysts

, AztecExplorer provides transparent and accurate data to monitor activity as Aztec grows.

For users

, AztecExplorer will provide transaction updates and facilitate the adoption of the network.

Objectives:

1. UX

2. Visualize the Aztec blockchain in a way that is simple for the average market participant and descriptive for hardcore developers and on-chain data analysts.

3. Performance

4. A fast block explorer that keeps up with the blockchain updates in real-time with minimal downtime.

5. Insights

6. Aztec-specific features that highlight novel paradigms and unlock new design space for developers.

Estimated Start and End Date

:

August - November 2024

Details

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Support the standard features of a block explorer, such as Blocks, Transactions, Contracts, and more.

Team

We are the team that built Starkscan, the primary block explorer on Starknet. Our explorer has scaled to over 300,000 monthly active users. Starkscan is a developer partner with the Starknet Foundation. We're also building the first explorer for Polygon Miden.

Account Abstraction

Starkscan was the first explorer to support native account abstraction. We conceptualized the concept of UOPs, which has been highlighted by the founder of L2beat We spoke at StarkWare Sessions 2023 regarding AA, rollups, and explorers.

Starkscan supports Account Abstraction with a new data primitive called Account Calls,

now commonly known as UOPS (User Operations).

All Account Calls on Starknet can be seen here. Every Transaction on Starkscan is decoded to show the Account Calls of

the Transaction. Contracts on Starkscan will also show the recently executed Account Calls.

With Account Calls, developers can see what users are running on-chain. This is a powerful tool for developers to understand how their contracts are used and debug them.

Bridging

Bridging UX has always been challenging as a rollup, especially for withdrawals. During withdrawals, Ethereum does not natively understand the existence of the L2. Therefore, users need to run an additional withdrawal transaction on L1 after their L2 withdrawal transaction is complete. With Starkscan, we built integrations with the bridge so users can bridge with confidence, clarity, and certainty.

The details of how we solved the bridging problem can be found[here](#).

Contract Verification

We built the first [contract verification CLI](#) for Starknet, which has become the standard. Our goal was to help developers verify their contracts in under one minute. Our tool accomplishes this by crawling the developers' filesystem, depending on the tooling they used, and sending the correct information to our verifier.

The verifier has over 1,300 GitHub stars and nearly 1,000 downloads.

API

Our Starknet API has over 30+ retail and enterprise API customers, making up to 1,000,000 daily requests. These clients include StarkWare, Argent, Token Terminal, and more.

Ecosystem Analytics

We have built a suite of ecosystem analytics for Starknet. See the growth of the Starknet ecosystem[here](#).

Open Source

Recipient of the [Worldcoin Wave0](#) grant. The successful deliverable was open-sourced on GitHub [here](#).

Name	GitHub Stars	Downloads
[Starknet.js](#)	1.2k	1.1M
[Starkscan Verifier](#)	1.3k	1k
[blockchain cli](#)	1.2k	10k
[blockchain](#)	923	
[coin cli](#)	187	

Experience

- Nvidia AI Infra

- MemSQL/SingleStore Cloud Infra

- Blockchain[dot]com Wallet

- University of Toronto Computer Science

- Purdue University Software Engineering

Other Blockchain Visualizers:

- [Blockchain Demo](#)

- [Blockchain Demo 2.0](#)

- [Coin Demo](#)

Talks

- [StarkWare Sessions 23 | Account Abstraction, Messaging, and Block Explorers | Sean](#)

- [Web3 for Mass Adoption with Starknet and React Native | Sean Han & Janek Rarht | App.js Conf 2022](#)

Grant Milestones and roadmap

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Milestone 1

- Research and Indexing data (August - September)

Milestone 2

- Design and Development (October - November)

Milestone 3

- Cleanup and final touches (December)

Grant amount requested

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Grant amount: Opportunity for retroactive grant

Grant budget rationale

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Our goal is to be long-term aligned with the Aztez protocol. A successful block explorer will grow and foster the value of the Aztec ecosystem. We trust that a fair retroactive grant is available based on our contributions. Our lead investor is [1Confirmation](#) (Seed in Opensea, dYdX, Polymarket, Farcaster), so we have the runway to operate.