01. What Does an Onchain Data Analyst Do?

> “The most powerful analysts in Web3 aren’t waiting for a data export—they’re reading the chain in real time.”

The onchain analyst is a new breed of data professional, born from the transparency of blockchains and the explosion of decentralized systems. Their skill set bridges finance, data science, and crypto-native curiosity. Where most see wallets and tokens, the onchain analyst sees behavior, patterns, risk, and opportunity.

They are the sensemakers of Web3.

The Mission: Decode the Transparent Economy

Unlike Web2 analysts who operate within closed platforms, the onchain analyst works in the open. Their raw material isn’t Google Analytics or Salesforce dashboards—it’s wallet addresses, smart contracts, token movements, and immutable ledgers. Their job is to extract meaning from what is often overwhelming raw data.

And because all blockchain activity is public, analysts are no longer limited by what companies are willing to share.

This is analytics without permission.

Daily Activities of an Onchain Analyst

1. Building Dashboards

- Monitor protocol KPIs: TVL, active users, transaction volumes
- Track token performance, staking activity, or treasury outflows
- Visualize contract interactions (e.g., Uniswap LP positions, lending activity on Aave)

2. Writing SQL Queries

- Query raw blockchain data from platforms like Dune or Flipside
- Join data from contracts, prices, tokens, wallets, and events
- Identify specific wallet behaviors (e.g., whales, sybil patterns, bot activity)

3. Research and Reporting

- Analyze how protocols are being used—and by whom
- Surface anomalies in user behavior (wash trading, manipulation, dormant wallet activity)
- Contribute to DAO discussions with onchain metrics
- Support governance proposals with real data

4. Monitoring Risks and Flows

- Watch stablecoin inflows/outflows to/from exchanges
- Flag large smart wallet transactions
- Measure liquidity migration across chains

5. Collaborating with Protocols or Communities

- Deliver analytics as part of DAO research teams, grants, or core contributor roles
- Help shape incentive designs or tokenomics using historical behavioral insights

- Provide transparent reporting for LPs, community members, and token holders

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Core Tools of the Trade

Here are the most common tools in the onchain analyst's toolkit:

Tool	Purpose
Dune	SQL-powered dashboarding with rich blockchain datasets
Flipside	Community-driven data science and bounty ecosystem
Nansen	Wallet labeling, token flow analytics, smart money tracking
Parsec	Real-time DeFi charts and monitoring
Tenderly	Developer and contract execution tracing
DeBank	Portfolio and wallet-level views across DeFi

But tools are only part of the job. The real value lies in asking the right questions.

Onchain vs Traditional Analytics

Let's contrast the onchain experience with the traditional one:

Dimension	Web2 Analytics	Onchain Analytics
Data Access	Gated, private APIs	Public, permissionless ledgers
Granularity	Platform-defined	Transaction- and address-level
Latency	Aggregated post-hoc	Real-time, streaming if needed
Trust Model	Vendor trust (black box)	Trustless (verifiable onchain)
Portability	Vendor-locked	Fully open-source and exportable

In Web3, you don’t wait for someone to provide the numbers—you query the chain yourself.

Use Cases Where Onchain Analysts Shine

- **Detecting Wash Trading**: Identify patterns of repeated NFT transfers at high volume/low cost
- **MEV Detection**: Quantify sandwich attacks, backrunning, or liquidations
- **DAO Treasury Oversight**: Track how funds are moved, spent, and diversified
- **Protocol Health Monitoring**: Flag abnormal TVL drops or liquidity rugging events
- **Whale Tracking**: Follow influential wallets across chains and protocols
- **Tokenomics Analysis**: Understand vesting unlocks, supply dynamics, and staking behavior

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Why This Role Is Only Growing

As more value, more users, and more infrastructure moves onchain, the need to interpret it grows in tandem. The days of trusting PDFs or quarterly reports are over. Anyone can build a real-time, interactive, public dashboard that updates live and shows how a billion-dollar system is behaving.

Analysts who embrace this shift will not only contribute insight—they’ll help shape the direction of the industry.

In Web3, data isn’t just something you analyze.

It’s something you help govern.

Coming Up Next

In the next article, we'll explore the foundational data stack of the onchain analyst—from understanding blockchain data models to decoding what makes a Dune query tick.

Next: The Onchain Stack — SQL, Spellbook, and Decoding UTXOs