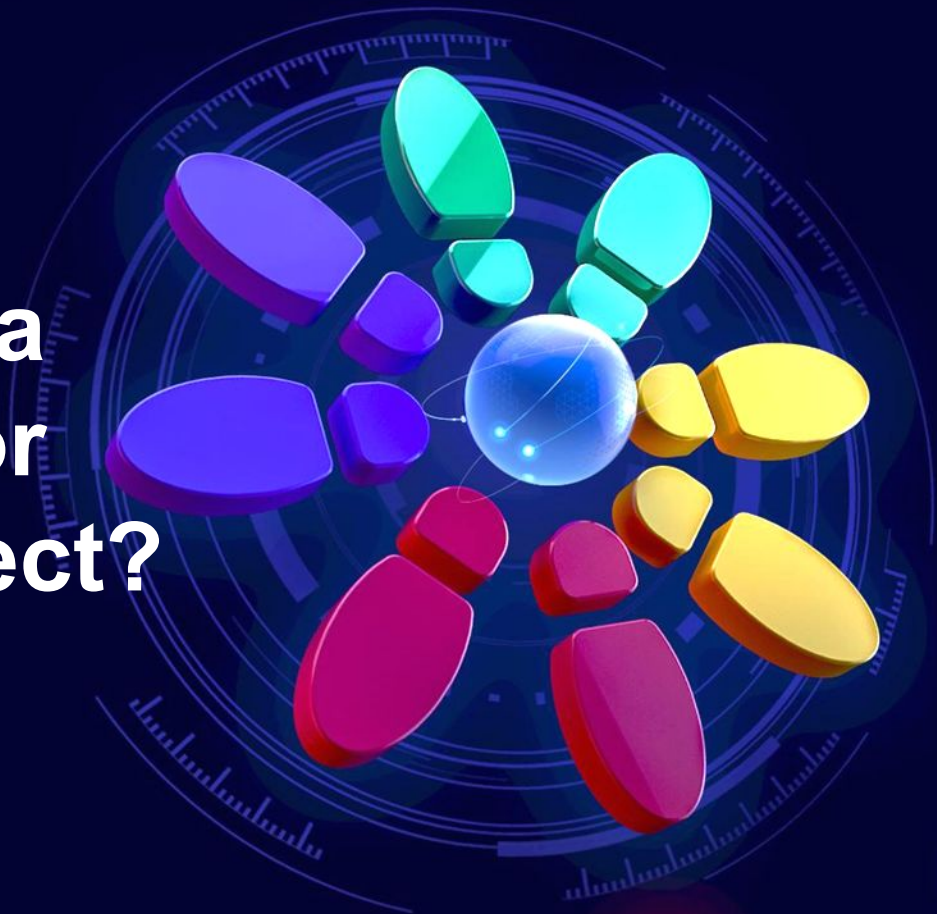




# How to choose a data provider for your web3 project?

Navy, co-founder of Footprint Analytics  
2023/1/12

 @Navy\_Tse



# About Me

- Co-founder of Footprint Analytics | Cross-chain Data Analytics | Developer
- Twitter: @Navy\_Tse



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- 01** Simplified Web3 Blockchain Data Product Stack
- 02** Key factors in choosing a data provider
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分类	示例
数据应用	Nansen, Messari, Scan, Debank...
数据平台	Footprint, Dune, Flipside...
数据节点	Infura, Quicknode, Infstones, Alchemy...

## Key factors in choosing a data provider

- 数据需求: 能满足你的特定需求和目标。
- 数据质量: 提供准确可靠的数据以及在行业有一定声誉。
- 数据覆盖度: 拥有涵盖你特定需求的广泛数据, 当前以及未来几年的 发展计划。
- 数据整合: 与你现有系统, 技术架构, 数据格式的兼容性。
- 价格: 定价应合理并符合行业标准。多找几家服务商比较参考。
- 技术支持: 能提供比较好的技术支持, 在你遇到问题并寻求帮助时, 能得到及时回应和处理。
- 合法合规: 遵守数据隐私和监管法律。

# Scenario and case sharing - scan

比如查看链上原始数据，比如单笔交易的状态和明细数据，可以用Scan。能简单快速查看特定交易涉及的数据

OverviewInternal TxnsLogs (30)StateComments

Transaction Hash:0x625aacd0a21ec4e62112e6dfa3dc3cb42bc2bdee375e2a38949aa66d1d5b179d

Status:Success

Block:1638379925 Block Confirmations

Timestamp:5 mins ago (Jan-11-2023 01:14:35 PM +UTC)Confirmed within 6 secs

Transaction Action:

Sale: 15 NFTs For 3.6458 Ether On OpenSea

Transfer of HoshiboshiAr... (Hoshib...) From 0x2c0c2aa73e2800a83e... To 0xf0f9fd8a02519e4252e...  
1 of Token ID [732]

Transfer of HoshiboshiAr... (Hoshib...) From 0x1cbaafea429dd0fcb7... To 0xf0f9fd8a02519e4252e...  
1 of Token ID [645]

Transfer of HoshiboshiAr... (Hoshib...) From 0x121aae2c90ed0e1ccb... To 0xf0f9fd8a02519e4252e...  
1 of Token ID [479]

Transfer of HoshiboshiAr... (Hoshib...) From 0x597d79c140590c64a2... To 0xf0f9fd8a02519e4252e...  
1 of Token ID [580]

Transfer of HoshiboshiAr... (Hoshib...) From 0xb15d8dfed0060f0cd80... To 0xf0f9fd8a02519e4252e...

Scroll for more

Sponsored:

From:0xf0f9fd8a02519e4252e65738dd57092173ea7ad

Interacted With (To):Contract 0x000000000006c3852cbe3e08e8df289169ede581 (Seaport 1.1)  
TRANSFER 0.2151 Ether From Seaport... To 0x121aaec0e0e1cc0b134...  
TRANSFER 0.2151 Ether From Seaport... To 0x597d79c140590c64a29191...  
TRANSFER 0.216 Ether From Seaport... To 0xb15d8dfed0060f0cd80b1b0...  
TRANSFER 0.216 Ether From Seaport... To 0x1009e55de1316ba7c624...  
TRANSFER 0.216 Ether From Seaport... To 0x2d7bc51199f49f7341521e...  
TRANSFER 0.2187 Ether From Seaport... To 0x4334cdeb036b102829e4b6...  
TRANSFER 0.2196 Ether From Seaport... To 0x6c27609d57829857341235...  
TRANSFER 0.2205 Ether From Seaport... To 0xf178a38b49593a1094860...  
TRANSFER 0.2214 Ether From Seaport... To 0x4079b2d3a39d5b9ecb07a...

## Scenario and case sharing - scan

使用Scan会有哪些限制？

- 汇总数据: 比如你想看 Opensea某一天的交易量
- 时间序列数据: 比如你想看 Opensea历史交易量趋势
- 跨链数据: 比如你想看 Opensea在Ethereum和Solana的历史交易量趋势
- 高级搜索功能: 比如你想看某个 NFT的所有转账历史以及在各大 Marketplace上的交易数据

## Scenario and case sharing - RPC Provider

- 有研发团队以及大数据背景, 有能力自建数据索引, 处理以及存储等过程, 去搭建数仓或者应用。
- 基于链底层数据, 搭建实时交易或者实时分析应用

节点服务商	QuickNode	Infstone	Alchemy	Infura	ChainStack	Ankr	GetBlock	BlockDaemon
支持公链数量	12	11	5	8	13	12	39	53
Ethereum	1	1	1	1	1	1	1	1
BSC	1	1	0	0	1	1	1	0
Solana	1	1	0	0	1	1	1	1
Bitcoin	1	0	0	0	1	0	1	1
Optimism	1	0	1	1	0	0	1	0
Fantom	1	0	0	0	1	1	1	0
Terra	1	0	0	0	0	0	1	1
Arbitrum	1	0	1	1	0	1	1	0
Algorand	1	0	0	0	0	0	0	1
Gnosis	1	0	0	0	0	0	1	0
Polygon	1	1	1	1	1	1	1	0
Celo	1	0	0	0	0	1	0	1
Bitcoin Cash	0	0	0	0	0	0	1	1
XRP	0	0	0	0	0	0	1	1
Polkadot	0	0	0	0	0	0	1	1
EOS	0	0	0	0	0	0	1	0
Litecoin	0	0	0	0	0	0	1	0
Cardana	0	0	0	0	0	0	1	1
Near	0	0	0	1	0	1	1	1
Tron	0	0	0	0	0	0	1	0
Monero	0	0	0	0	0	0	1	0
Avalanche	0	0	0	0	1	1	1	1
Kusama	0	0	0	0	0	0	1	1
NEM	0	0	0	0	0	0	1	0



# Scenario and case sharing - RPC Provider



以Quicknode为例

eth/v2/beacon/blocks/{block\_id}

eth\_blockNumber

eth\_call

eth\_chainId

eth\_estimateGas

eth\_gasPrice

eth\_getBalance

eth\_getBlockByHash

eth\_getBlockByNumber

eth\_getBlockReceipts

eth\_getBlockTransactionCountByHash

eth\_getBlockTransactionCountByNumber

eth\_getCode

eth\_getFilterChanges

eth\_getFilterLogs

eth\_getLogs

eth\_getStorageAt

eth\_getTransactionByBlockHashAndIndex

eth\_getTransactionByBlockNumberAndIndex

TransactionPosition - Quantity.

type - String.

error - String.

**Code Examples:**

web3py

</> curl

ethers

eth.rb

```
1 from web3 import HTTPProvider
2
3 client = HTTPProvider('http://sample-endpoint-name.network.quicknode.pro/token-go
4 result = client.make_request('trace_block', ['0xccb93d'])
5 print(result)
6
```

Ready to get started?















Create a free account

## Scenario and case sharing - RPC Provider

使用RPC Provider 会有哪些限制？

- 数据可读性差: 比如你想看某个游戏NFT的交易量
- 缺乏结构化数据: 比如细分领域的数据, 像 GameFi用户数据, 新增, 留存用户等。
- 全量历史数据: 比如某个游戏历史上所有的token交易量

## Scenario and case sharing - Data Platform

<input type="checkbox"/>	Name	Logo	Category	Website	Twitter
<input type="checkbox"/>	 BigQuery		Blockchain Data Warehous...	<a href="https://console.cloud.google.com/mar...">https://console.cloud.google.com/mar...</a>	<a href="#">@GoogleCloud</a>
2	Chainbase		Blockchain Data Warehous...	<a href="https://chainbase.online/">https://chainbase.online/</a>	<a href="#">@ChainbaseOnline</a>
3	Dune		Blockchain Data Warehous...	<a href="https://dune.com/home">https://dune.com/home</a>	<a href="#">@DuneAnalytics</a>
4	Flipside		Blockchain Data Warehous...	<a href="https://flipsidecrypto.xyz/">https://flipsidecrypto.xyz/</a>	<a href="#">@flipsidecrypto</a>
5	Footprint		Blockchain Data Warehous...	<a href="https://www.footprint.network/">https://www.footprint.network/</a>	<a href="#">@Footprint_Data</a>
6	GeniiData		Blockchain Data Warehous...	<a href="https://geniidata.com/">https://geniidata.com/</a>	<a href="#">@geniidata</a>
7	Luabase		Blockchain Data Warehous...	<a href="https://luabase.com/">https://luabase.com/</a>	<a href="#">@onluabase</a>
8	Numia		Blockchain Data Warehous...	<a href="https://numia.xyz/">https://numia.xyz/</a>	<a href="#">@NumiaData</a>
9	Space and Time		Blockchain Data Warehous...	<a href="https://www.spaceandtime.io/">https://www.spaceandtime.io/</a>	<a href="#">@SpaceandTimeDB</a>
10	Spice		Blockchain Data Warehous...	<a href="https://spice.xyz/">https://spice.xyz/</a>	<a href="#">@spice_ai</a>
11	Stacks on Chain		Blockchain Data Warehous...	<a href="https://stacksonchain.com/">https://stacksonchain.com/</a>	<a href="#">@anononchain</a>
12	Transpose		Blockchain Data Warehous...	<a href="https://www.transpose.io/">https://www.transpose.io/</a>	<a href="#">@TransposeData</a>
13	Zettablock		Blockchain Data Warehous...	<a href="https://www.zettablock.com/">https://www.zettablock.com/</a>	<a href="#">@ZettaBlockHQ</a>

下面以Footprint Analytics为例，怎样为Developer提供更好的解决方案

# Most Comprehensive Coverage of Chains and Domains



Footprint Analytics provides a comprehensive, timely and accurate overview of the full blockchain ecosystem

24

Chains

700,000+

NFT Collections

17

NFT Marketplaces

1,987

GameFi Protocols

519

DeFi Protocols

108,005

Tokens

## Chains



SOLANA



## Marketplace



2.0



Aavegotchi



Cryptopunks



Walken



MAGIC EDEN



Rarible

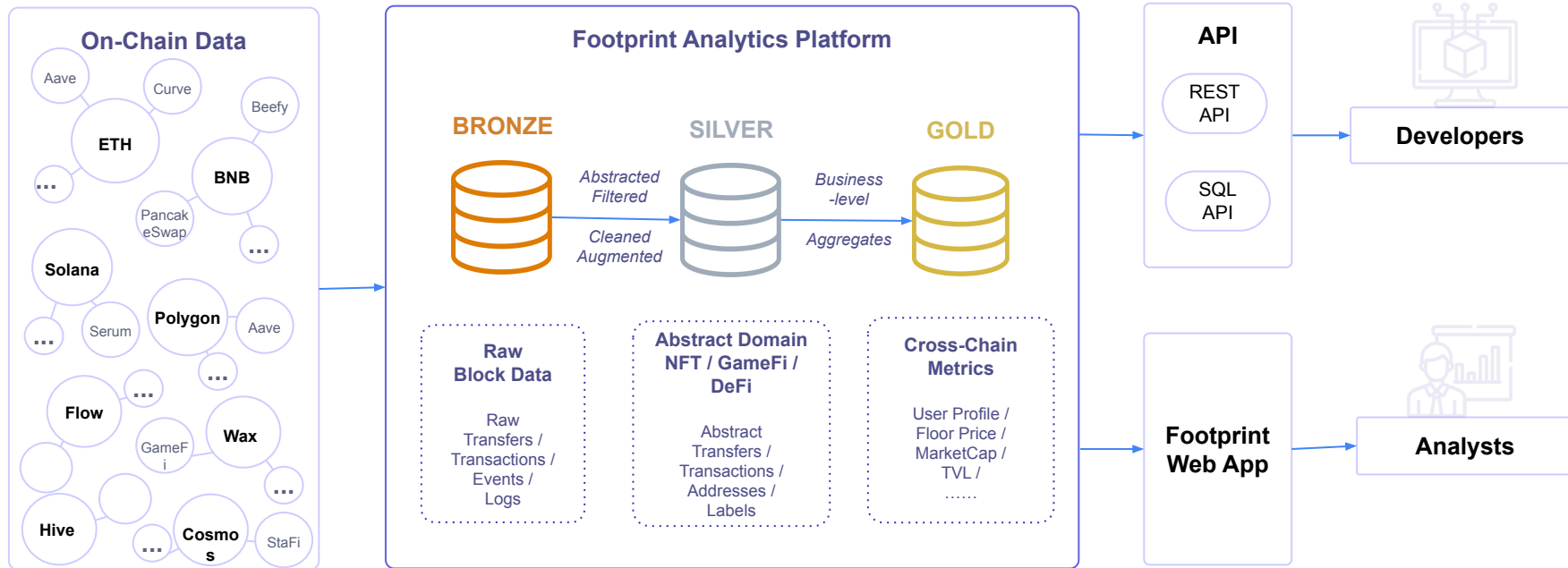


Decentraland



# The Footprint Data Model: Versatile and Robust

Built for developers, by developers

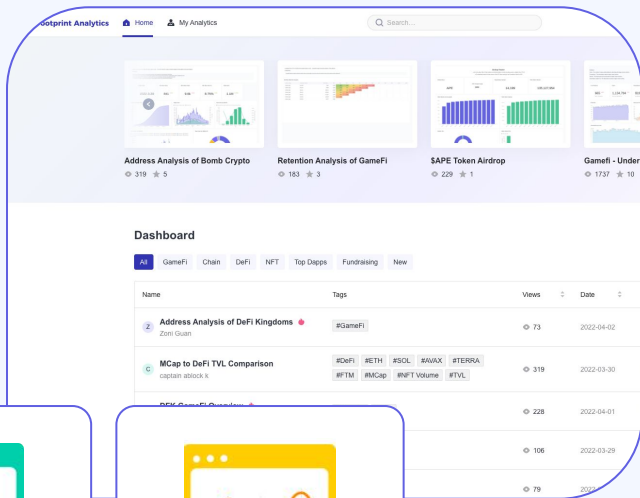


# Preview and Visualize Data with Footprint Web App



Before programming the SQL API, you can debug your query on Footprint UI

## Footprint Web App



SQL Query



No Code

## Data API

### Build fast, build smart and scale your users

Power your Web3 projects and applications with unmatched data



### SQL API

Powerful, Powerful and Powerful

### REST API

Super fast and simple

[Try for free](#)

## 案例分享

- 0代码构建NFT Marketplace 分析应用：  
<https://www.footprint.network/@0xLam/OpenSea>
- 0代码构建GameFi项目分析应用  
: [https://www.footprint.network/@Higi/Era7-Cards-NFT-Collections?game\\_name=era7-game-of-truth&collection=era7-cards&series\\_date=past90days](https://www.footprint.network/@Higi/Era7-Cards-NFT-Collections?game_name=era7-game-of-truth&collection=era7-cards&series_date=past90days)
- 0代码构建用户画像分析系统  
: [https://www.footprint.network/@rogerD/Gamer-Profile?wallet\\_address=0x81e4fb0c64bf49f89b57f6648562fc9a791b2e92](https://www.footprint.network/@rogerD/Gamer-Profile?wallet_address=0x81e4fb0c64bf49f89b57f6648562fc9a791b2e92)
- 0代码构建竞品分析框架  
: [https://www.footprint.network/@0xLam/Walken-vs-StepN?game\\_a=walken&game\\_b=stepn&chain=Solana](https://www.footprint.network/@0xLam/Walken-vs-StepN?game_a=walken&game_b=stepn&chain=Solana)

[Try for free](#)



# Restful API

以获取mutant-ape-yacht-club在各大NFT Marketplace的交易为例

(MAYC collection contract address:0x60E4d786628Fea6478F785A6d7e704777c86a7c6)



JUMP TO

GET STARTED

How to get API key

Introduction

REST API V2

- NFT
  - NFT transactions** GET
  - NFT transfers GET
  - NFT orders GET
  - NFT wash trade checker GET
  - NFT collection statistics GET
  - NFT statistics GET
  - NFT info GET
  - NFT attributes GET
  - NFT collections by chain GET
  - NFT balance GET
  - NFT balance by wallet GET
- Token
- GameFi
- Chain
- SQL API
- Query
- UPLOAD API
  - Upload
- REST API V1
  - NFT
    - GameFi
    - Chain
    - Address

## NFT transactions

GET https://api.footprint.network/api/v2/nft/collection/transactions

Returns the sales record of the NFT collection in the marketplace.

### YOUR REQUEST HISTORY

TIME	STATUS	PATH	USER AGENT
2023/1/12 17:44	200	/api/v2/nft/collection/tra...	API Explorer
2023/1/12 17:44	200	/api/v2/nft/collection/tra...	API Explorer
2023/1/12 17:42	200	/api/v2/nft/collection/tra...	API Explorer

### QUERY PARAMS

Chain

collection\_contract\_address string required  NFT Collection Contract Address

start\_time string

end\_time string

LANGUAGE

Shell Node Ruby PHP Python

AUTHENTICATION API Key HEADER

Header

CURL

```
1 curl --request GET \  
2 --url 'https://api.footprint.network/api/v2/nft/c\  
3 --header 'API-KEY: 40c2avnA08fujYtPdMz9ix6o/jR2H\  
4 --header 'accept: application/json'
```

RESPONSE

```
{  
  "block_date": "2023-01-11",  
  "trade_type": "single",  
  "transaction_hash": "0x8bdc33192d07262c06878a41557b",  
  "block_timestamp": "2023-01-11 21:30:59.000 UTC",  
  "block_number": 16386259,  
  "log_index": "215",  
  "chain": "Ethereum",  
  "eth_amount": 20.5,  
  "internal_index": "0",  
  "collection_contract_address": "0x60E4d786628Fea647",  
  "collection_slug": "mutant-ape-yacht-club",  
  "nft_token_id": "9497",  
  "marketplace_contract_address": "0x74312363e45dcaba",  
  "marketplace_slug": ">2y2",  
  "number_of_nft_token_id": 1,  
  "value": 27337.034991136155,  
  "value_currency": "USD",  
  "amount": 20.5,  
  "amount_currency": "ETH",  
  "amount_currency_contract_address": "0xe000000000000000000000000000000000000000000000000000000000000000",  
  "buyer_address": "0x0bf67f94c80e9cd0b60512b19ed9a2i",  
  "seller_address": "0x70219c18604deb7f89379d56a622bdc",  
  "royalty_rate": 0,  
  "royalty_amount": 0,  
  "royalty_value": 0,  
  "platform_fee_rate": 0,
```

Build your NFT dapps with Footprint, including:

- [NFT explorer](#)
- [NFT wallets](#)
- [NFT trackers](#)
- [NFT marketplaces](#)
- [NFT games](#)

[Try for free](#)

# SQL API - Customized for Your Needs



A flexible SQL API customization for robust requirements

## SQL API

```
import axios from 'axios'

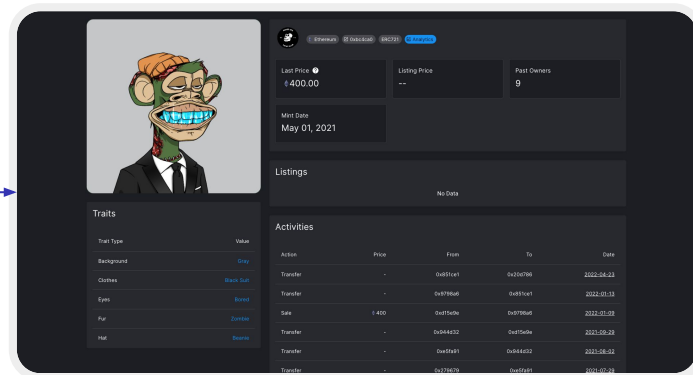
axios.post('https://api.footprint.network/api/v1/native', {
  query: `
    SELECT * FROM (
      SELECT * FROM nft_info
      WHERE collection_contract_address =
        '0xbc4ca0eda7647a8ab7c2061c2e118a18a936f13d' AND nft_token_id = 1401
    ) a
    LEFT JOIN (
      SELECT * FROM nft_token_attributes
      WHERE collection_contract_address =
        '0xbc4ca0eda7647a8ab7c2061c2e118a18a936f13d' AND nft_token_id = 1401
    ) b
    ON b.collection_contract_address = a.collection_contract_address AND
    b.nft_token_id = a.nft_token_id
    LEFT JOIN (
      SELECT * FROM nft_transfers
      WHERE collection_contract_address =
        '0xbc4ca0eda7647a8ab7c2061c2e118a18a936f13d' AND nft_token_id = 1401
    ) c
    ON c.collection_contract_address = a.collection_contract_address AND c.nft_token_id
    = a.nft_token_id
  `
})
```



## Response

```
{
  "chain": "Ethereum",
  "collection_contract_address": "0xbc4ca0eda7647a8ab7c2061c2e118a18a936f",
  "nft_token_id": "1401",
  "collection_slug": "bored-ape-yacht-club",
  "collection_name": null,
  "token_name": "BoredApeYachtClub #1401",
  "description": null,
  "image_url": "https://lh3.googleusercontent.com/vqgWQ4eX6zm8KFSRgv4-K6",
  "mint_transaction_hash": "0x6d5a377ad620edae2d7c54403824c451174ac8dd",
  "mint_block_timestamp": "2021-05-01T05:36:00.000Z",
  "mint_address": "0xc6dc654b5aa7969a24c7e4442a52e61fb8b24827",
  "metadata_url": "https://ipfs.io/ipfs/QmeSjSinHPnMxmSPJwixyN6zS4E9zcca",
  "metadata": {
    "traits": [
      {
        "trait_type": "Clothes",
        "value": "Black Suit"
      }
    ]
  },
  "internet_mime_type": "image/png",
  "animation_url": null,
  "attribute_key": "Background",
  "attribute_value": "Gray",
  "attribute_type": "string",
  "block_timestamp": "2022-10-24T00:36:11.000Z",
  "transaction_hash": "0x0ffdd35fc0833657098b26264d399a4c2e546c08d9de0b",
  "log_index": "1401",
  "block_date": "2022-10-24",
  "block_number": "15814427",
  "from_address": "0xd30cad3f023888d5a81580fb80f93102d69e9ef",
  "to_address": "0x4e9cf298bc3dc6c38013b25fd560bca6a18e2ae6",
  "amount_raw": 1,
  "internal_index": "0",
  "transfer_type": "transfer"
}
```

## NFT App



[Try for free](#)

# SQL API - Customized for Your Needs

A flexible SQL API customization for robust requirements



Use Case: 获取NFT 交易聚合器 Blur 的交易数据

select \* from "nft\_aggregator\_transactions" where aggregator\_slug = 'blur' limit 10

Try for free

# 社区福利

通过这个链接注册, 前10名用户可以获得 Footprint 的7天免费 Business plan 和 SQL API试用: <https://www.footprint.network/?channel=dev-daplearning>



Twitter: [https://twitter.com/Footprint\\_Data](https://twitter.com/Footprint_Data)



Discord: <https://discord.com/invite/3HYaR6USM7>



Data API: <https://www.footprint.network/data-api>



Github: <https://github.com/footprint-network>



Email: [sales@footprint.network](mailto:sales@footprint.network)



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