



How to create wallet profile from game & NFT perspective

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About Me

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- Intro about Footprint Analytics
- How to Create wallet profile
 - feature table Intro
 - Final result
 - Create interaction features based on Game details
 - Create P&L based on NFT transactions
- How to use the wallet profile



Learn more about Footprint

Blockchain analytics made simple

Explore community-built analysis and create charts with no code required.

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

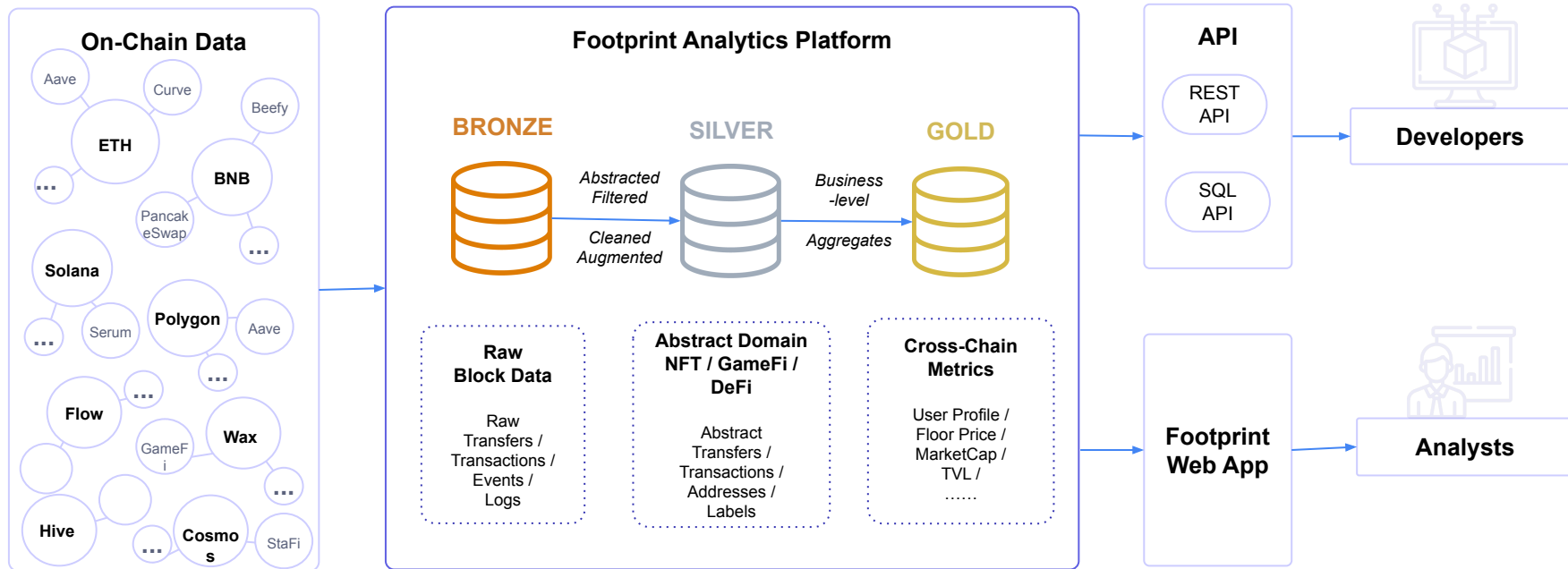


Marketplace



The Footprint Data Model: Versatile and Robust

Built for developers, by developers

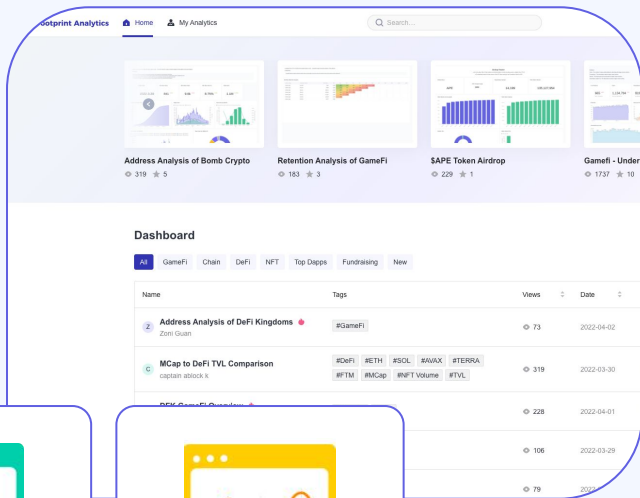


Preview and Visualize Data with Footprint Web App



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

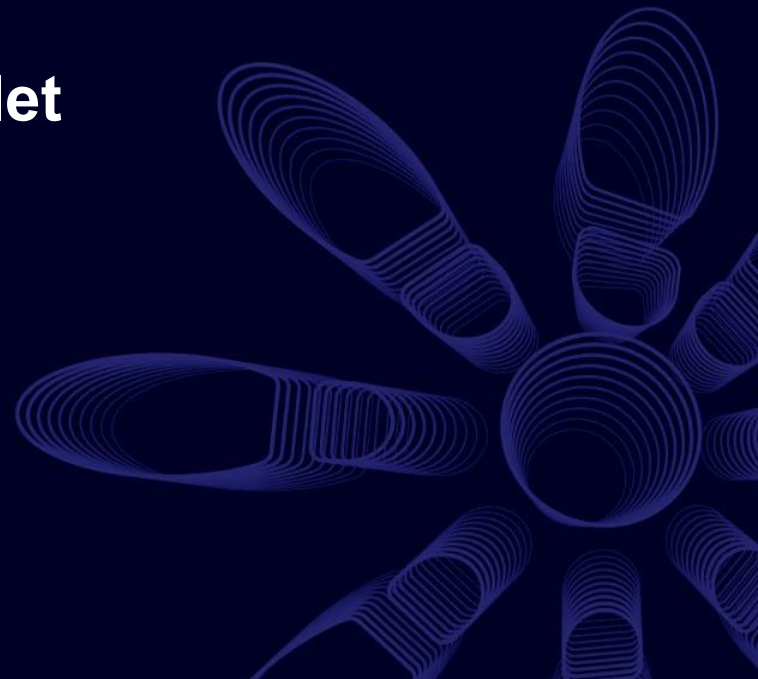
Powerful, Powerful and Powerful

REST API

Super fast and simple

[Try for free](#)

01 How to Create wallet profile



Key Tables

bronze tables

- {chain}_token_transfers,
- {chain}_transactions

silver tables

- contract_info
- protocol_info
- nft_transactions

gold tables

- address_latest_balance

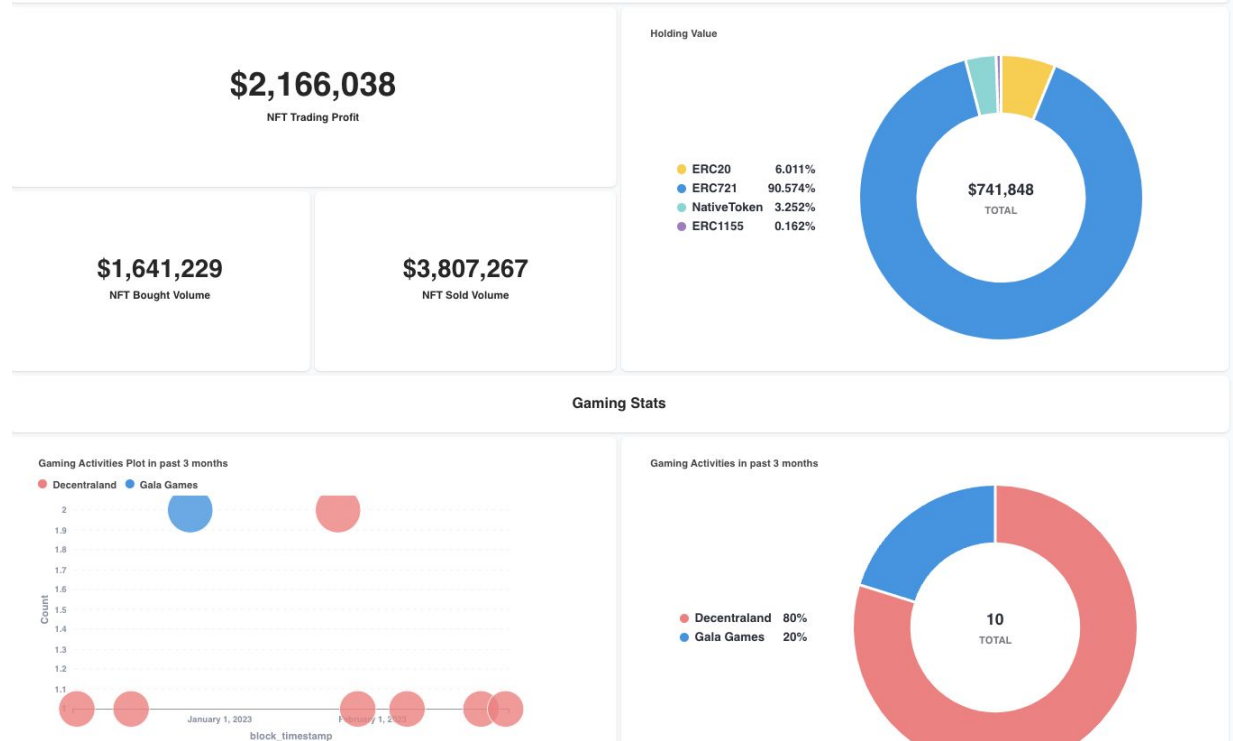
The screenshot shows the Footprint Analytics interface with the 'Gold' tab selected. The search bar is empty. The 'All chains' dropdown is open. The 'Gold' tab is highlighted. The table list is expanded, showing categories: DeFi, Protocol, Address, GameFi, NFT, and Token. The 'Protocol' category is expanded, showing tables: protocol_active_address, protocol_address_retention_monthly Beta, protocol_address_retention_weekly, and protocol_daily_stats. The 'Address' category is expanded, showing tables: address_latest_balance and protocol_active_address. The 'GameFi' category is expanded, showing tables: gamefi_protocol_daily_stats, protocol_active_address, and protocol_daily_stats. The 'NFT' category is expanded, showing tables: marketplace_nft_collection_daily_stats Beta and nft_collection_daily_stats Beta. The 'Token' category is expanded, showing tables: token_daily_stats.

The screenshot shows the Footprint Analytics interface with the 'Silver' tab selected. The search bar is empty. The 'All chains' dropdown is open. The 'Silver' tab is highlighted. The table list is expanded, showing categories: DeFi, Protocol, Address, GameFi, Label, and NFT. The 'Protocol' category is expanded, showing tables: contract_info, protocol_info, protocol_token_transfers, and protocol_transactions. The 'Address' category is expanded, showing tables: ens_latest_resolver and solana_account_mapping. The 'GameFi' category is expanded, showing tables: protocol_info and protocol_transactions. The 'Label' category is expanded, showing tables: entity_tag and transaction_entity_tag Beta. The 'NFT' category is expanded, showing tables: nft_aggregator_info Beta, nft_aggregator_transactions Beta, nft_collection_info Beta, and nft_info Beta.

The screenshot shows the Footprint Analytics interface with the 'Bronze' tab selected. The search bar is empty. The 'All chains' dropdown is open. The 'Bronze' tab is highlighted. The table list is expanded, showing categories: Chains, Arbitrum, Avalanche, Bitcoin, Boba, BSC, and Celo. The 'Chains' category is expanded, showing tables: arbitrum_blocks, arbitrum_logs, arbitrum_token_transfers, arbitrum_traces, arbitrum_transactions, avalanche_logs, avalanche_token_transfers, avalanche_transactions, bitcoin_transaction_inputs, bitcoin_transaction_outputs, bitcoin_transactions, boba_token_transfers, boba_transactions, bsc_blocks, bsc_logs, bsc_token_transfers, bsc_traces, bsc_transactions, and celo_token_transfers.

Wallet profile(game+NFT): simple version

•



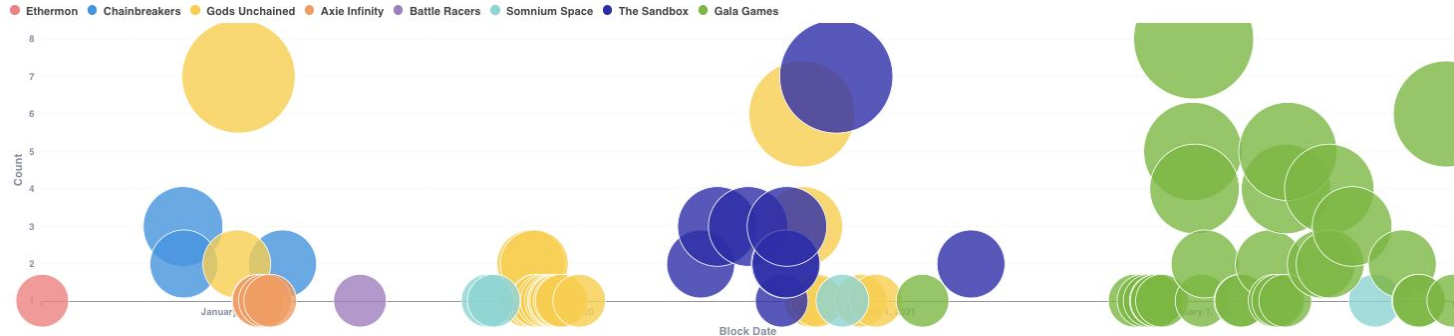
Wallet profile(game+NFT): complex version

In-Game NFT Stats

Collection Name	Game Name	Genre	Total Buy Volume	Total Sell Volume	Current Holding Value	Total NFTs In	Total NFTs Out	Current NFTs	NFTs Bought	NFTs Mint	NFTs Received	NFTs Sent	NFTs Sold
Decentraland-DecentralandLAND	Decentraland	Metaverse	\$77,830.04	\$47,281.47	\$1,055,323.29	777	323	454	11	251	515	316	7
Gods Unchained	Gods Unchained	Card	\$921.10	\$38.40	\$5,107.01	468	2	466	36	398	34	1	1
Decentraland-dappcraft_moonmine	Decentraland	Metaverse	\$0	\$2,629.29	\$4,865.91	13	7	6	0	13	0	3	4
The Sandbox's LANDs	The Sandbox	Metaverse	\$0	\$0	\$3,927.79	2	0	2	0	2	0	0	0
Somnium Space Land	Somnium Space	Open-World	\$21,543.12	\$137,953.52	\$1,417.40	55	54	1	40	0	15	7	47
Arcona Digital Land	Arcona X-Reality Universe	Fantasy	\$0	\$0	\$164.74	1	0	1	0	0	1	0	0
Decentraland-halloween_2020	Decentraland	Metaverse	\$0	\$0	\$131.51	10	0	10	0	10	0	0	0
Decentraland-DCLRegistrar	Decentraland	Metaverse	\$0	\$0	\$89.52	2	0	2	0	2	0	0	0
The Sandbox ASSETS	The Sandbox	Metaverse	\$0	\$513.19	\$65.76	93	3	90	0	90	0	0	0
Decentraland-halloween_2019	Decentraland	Metaverse	\$0	\$67.29	\$56.99	67	66	1	0	1	0	0	0
Decentraland-xmas_2020	Decentraland	Metaverse	\$0	\$0	\$14.61	1	0	1	0	1	0	0	0

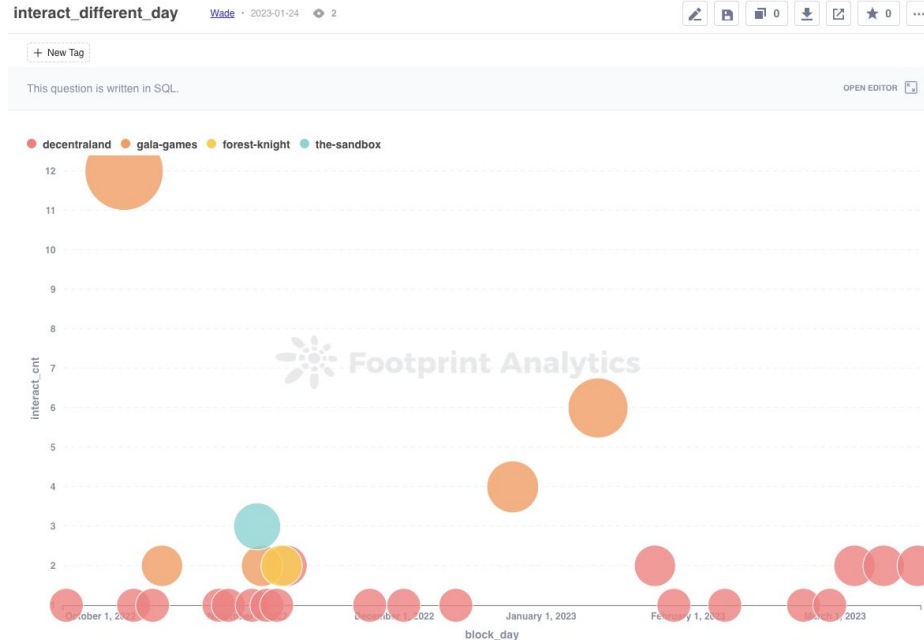
https://www.footprint.network/@rogerD/Game-r-Profile?wallet_address=0x81e4fb0c64bf49f89b57f6648562fc9a791b2e92

Daily Game Activities by Protocol



How to: Create interaction features based on Game details

- [step 1: calculate the interactions](#)
- [step 2 : create a chart for the result](#)



link

Wallet Address Trading Activities

rogerD · 2023-03-16 · 19

Marketplace

Date Filter

Previous 3 Months

Collection Contr:

Profit >=

Spent>=

Revenue>=

Sold Times >=

Bought Times >=

Sold NFTs >=

Bought NFTs >=

wallet_address	bought_times	sold_times	spent	bought_NFTs	revenue	sold_NFTs	profit
5XtL2xm8VduVy1QKYxf6cWP7ePNEgR6j2xm3cYR9VZP	15	18	1,473.96	15	1,793.72	18	319.75
H7VHQDUWvVWBw86hnKIZfBaV49XK1DxTCERzw91Qu5jc	7	9	268.81	7	385.11	9	116.3
996hBm9z4twrUE6NmCLEuJPPr9X8KEDwDkjh4KYnQ7T	2	0	325.06	2	0	0	-325.06
35TB9R42tvcK7AtMgYsqRYaRQMxfua9K9usKEndab5gx	18	18	1,037.17	18	1,581.24	18	544.07
HtPYnXQRExvBiDdFZHpaY2HdiHB6f67Fqlc4BglaofZ	9	9	1,077.77	9	983.72	9	-94.05
GXAmmgn8sVPkzBZ3b7cmpPByPWHTpbPGWoFKRc3peifi	11	10	922.29	11	984.72	10	62.42
7mJxd62omwWH6XzVIEypCWttrfnk7hSqwSHStFCupTT1	7	1	369.63	7	153.11	1	-216.52
BDhg79oxhxWFA57FNw6ub1eSC8R8dAJ5UqTopH8o2du	871	774	31,598.67	871	28,706.91	774	-2,891.75
3DJVHEvXwRLpCqN5p5W1eYwCQ1ZKk8EySx9qja9w1im2	192	99	10,700.79	192	8,497.95	99	-2,202.85
0x6e1356c75d8e55c6b5bd7787c23bc214ce4767f2	4	9	494.35	9	1,477.33	12	982.98
0xb3dd396ed6619db5ae6ee38101c5c884ab388da1	246	0	33,483.58	249	0	0	-33,483.58

02 How to use the wallet profile



How to use the wallet profile: AI clustering

NO

suppose given a dataset, with wallet_address as a user id, features are: profit, spend, revenue, sold_count, brought_count, interact_contract_count, interact_contract. could you show me how to make a clustering in Python using k-means



Sure! Here's an example code in Python using the `sklearn` library to perform K-Means clustering on the given dataset:

```
python Copy code

import pandas as pd
from sklearn.cluster import KMeans
from sklearn.preprocessing import StandardScaler

# Load the dataset
data = pd.read_csv('dataset.csv')

# Remove wallet_address column since it is not needed for clustering
X = data.drop('wallet_address', axis=1)

# Standardize the features
scaler = StandardScaler()
X_std = scaler.fit_transform(X)

# Set the number of clusters
k = 3

# Perform K-Means clustering
kmeans = KMeans(n_clusters=k, random_state=0)
clusters = kmeans.fit_predict(X_std)

# Add the cluster labels to the original dataset
data['cluster'] = clusters

# View the results
print(data.head())
```

NO

improve the above code by using Silhouette method for optimal k



Sure, here's an updated version of the code that uses the Silhouette method to determine the optimal number of clusters:

```
python Copy code

import pandas as pd
from sklearn.cluster import KMeans
from sklearn.preprocessing import StandardScaler
from sklearn.metrics import silhouette_score

# Load the dataset
data = pd.read_csv('dataset.csv')

# Remove wallet_address column since it is not needed for clustering
X = data.drop('wallet_address', axis=1)

# Standardize the features
scaler = StandardScaler()
X_std = scaler.fit_transform(X)

# Determine optimal number of clusters using Silhouette method
silhouette_scores = []
for k in range(2, 11):
    kmeans = KMeans(n_clusters=k, random_state=0)
    clusters = kmeans.fit_predict(X_std)
    score = silhouette_score(X_std, clusters)
    silhouette_scores.append(score)

# Get the optimal number of clusters with highest Silhouette score
optimal_k = silhouette_scores.index(max(silhouette_scores)) + 2

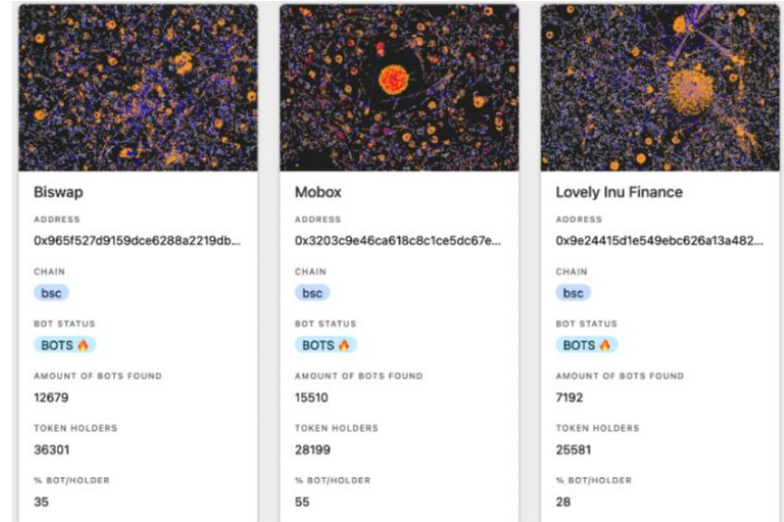
# Perform K-Means clustering with optimal k
kmeans = KMeans(n_clusters=optimal_k, random_state=0)
clusters = kmeans.fit_predict(X_std)

# Add the cluster labels to the original dataset
data['cluster'] = clusters

# View the results
print(data.head())
```

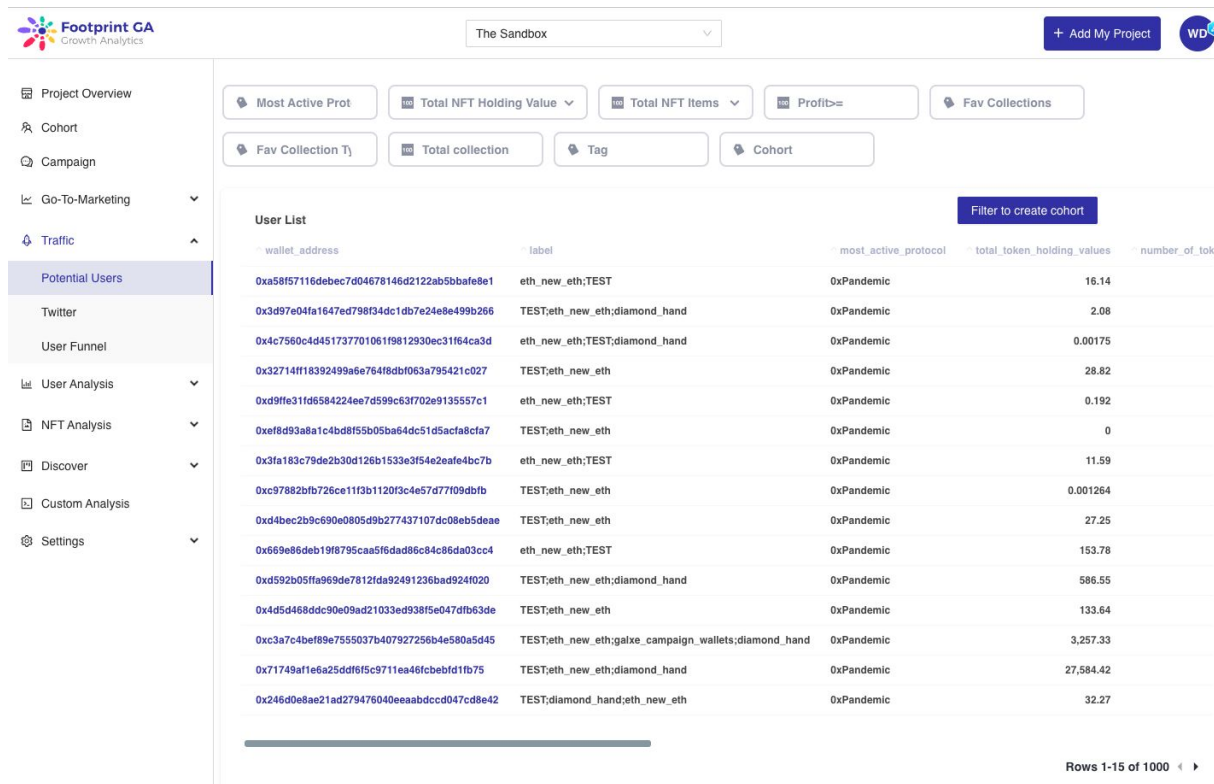
Bot detection Model: obvious & useful feature

- Sent native token to multiple wallet address
- Similar behavior pattern(timestamp and contract method)
- Cash out to same address with either NFT/ERC20
- Abnormal behavior comparing to human(Outliers)
 - long lasting behavior(eg: 12 hours/day)
 - Limited protocol interaction
- ...



How to use the wallet profile: marketing campaign Footprint Analytics

- create user cohort
- for market campaign



The screenshot displays the Footprint GA Growth Analytics dashboard. The left sidebar contains navigation options: Project Overview, Cohort, Campaign, Go-To-Marketing, Traffic, Potential Users (selected), User Analysis, NFT Analysis, Discover, Custom Analysis, and Settings. The main area shows a 'User List' table with columns for wallet_address, label, most_active_protocol, total_token_holding_values, and number_of_tokens. A 'Filter to create cohort' button is visible at the top right of the table. The table lists 15 rows of user data, including wallet addresses, labels, and values.

wallet_address	label	most_active_protocol	total_token_holding_values	number_of_tokens
0xa58f57116debec7d04678146d2122ab5bbaf8e1	eth_new_eth;TEST	0xPandemic	16.14	
0x3d97e04fa1647ed798f34dc1db7e24e8e499b266	TEST;eth_new_eth;diamond_hand	0xPandemic	2.08	
0x4c7560c4d451737701061f9812930ec31f64ca3d	eth_new_eth;TEST;diamond_hand	0xPandemic	0.00175	
0x32714f18392499a6e764f8db063a795421c027	TEST;eth_new_eth	0xPandemic	28.82	
0xd9f6e31f6584224e7d599c63702e9135557c1	eth_new_eth;TEST	0xPandemic	0.192	
0xef8d93a8a1c4bd8f5b05ba64dc51d5acfa8ca7	TEST;eth_new_eth	0xPandemic	0	
0x3fa183c79de2b30d126b1533e3f54e2aef4bc7b	eth_new_eth;TEST	0xPandemic	11.59	
0xc97882bfb726ce11f3b1120f3c4e57d77f09dbfb	TEST;eth_new_eth	0xPandemic	0.001264	
0xd4bec2b9c690e0805d9b277437107dc08eb5deae	TEST;eth_new_eth	0xPandemic	27.25	
0x669e86deb19f8795caa5f6dad86c84c86da03cc4	eth_new_eth;TEST	0xPandemic	153.78	
0xd592b05ffa969de7812fda92491236bad924f020	TEST;eth_new_eth;diamond_hand	0xPandemic	586.55	
0x4d5d468ddc90e09ad21033ed938f5e047dfb63de	TEST;eth_new_eth	0xPandemic	133.64	
0xc3a7c4bef89e755037b407927256b4e580a5d45	TEST;eth_new_eth;galxe_campaign_wallets;diamond_hand	0xPandemic	3,257.33	
0x71749af1e6a25ddf6f5c9711ea46fcbefbd1fb75	TEST;eth_new_eth;diamond_hand	0xPandemic	27,584.42	
0x246d0e8ae21ad279476040eeabdcdd047cd8e42	TEST;diamond_hand;eth_new_eth	0xPandemic	32.27	

Rows 1-15 of 1000

- Intro about Footprint Analytics
- How to Create wallet profile
 - Final result
 - Create interaction features based on Game details
 - Create P&L based on NFT transactions
- How to use the wallet profile
- Future
 - smart money (copy trade)

Q & A

Send **5 monthly free trial accounts** for the members who ask questions

Please sign up Footprint Analytics via the link <https://www.footprint.network/?channel=whale> and send your account to Admin in Footprint Discord.



Welcome to join our community



Twitter: 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



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