

# Edge Computing meets Web3: An Introduction to Ocean Protocol

Trent McConaghy



# Outline

- Intro to Ocean
  - Basics
  - Ocean Market
  - Ocean Ecosystem
- Ocean and Edge Computing: Compute-to-Data
- EVE \* Ocean Opportunities





# Intro to Ocean: Basics

# Ocean Mission: open up data, while maintaining privacy

Towards self-sovereign data for individuals and groups.

Opaque, Power  
Concentrated

Transparent,  
Permissionless

**DATA**

Shadow Data  
Economy  
FB, GOOG



Open Data  
Economy  
**Ocean**



*Data is a \$400B industry  
in Europe alone*

*How: Use crypto tools to  
make data an asset class*

# What is Ocean Protocol?

Ocean is...

1. **A community / ecosystem** of individuals and orgs driving to the mission (initiated by Ocean Protocol Foundation)
2. **A set of tools** as public infrastructure to facilitate the mission
3. **A token (OCEAN)** with incentives to grow & sustain the ecosystem

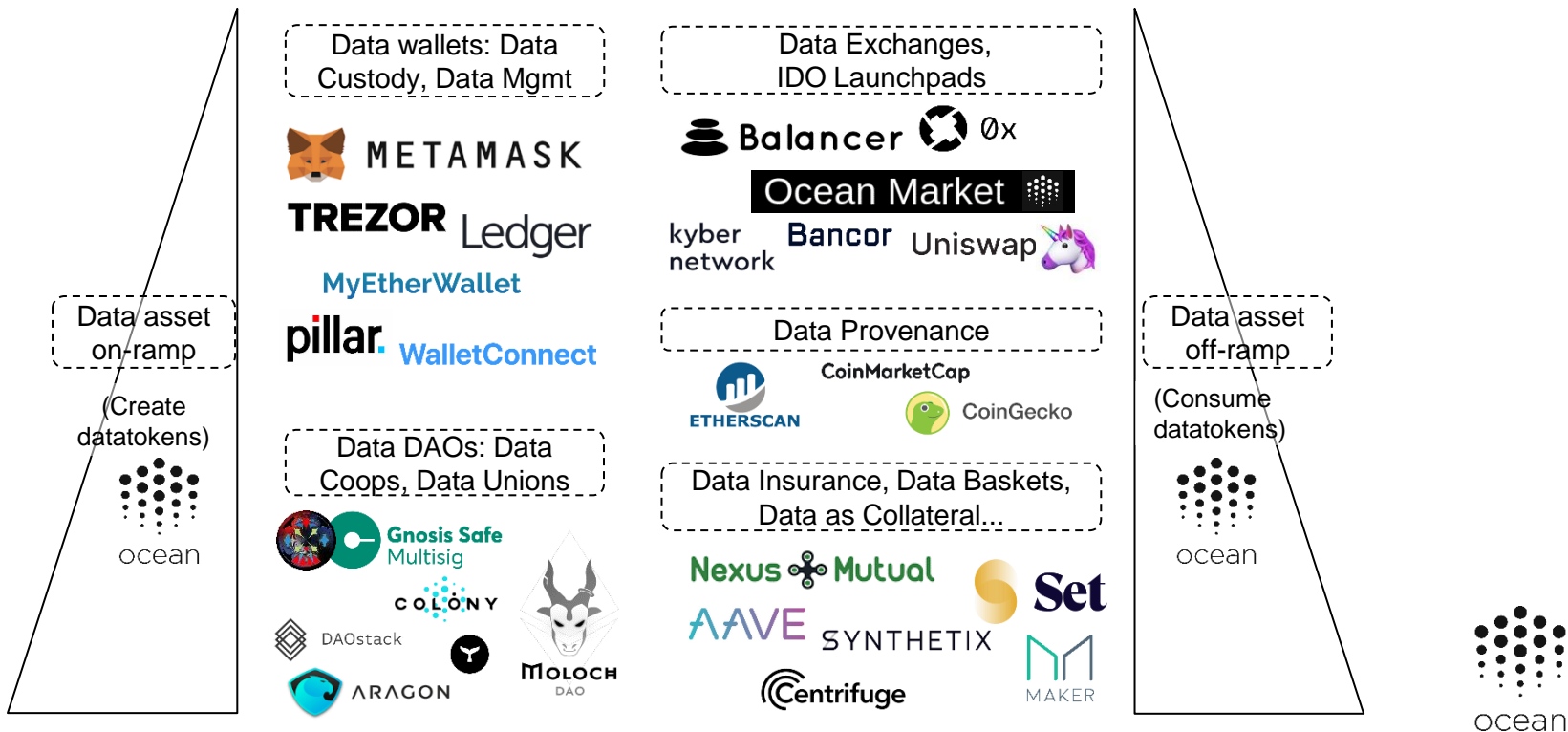
# Ocean Tools: How

- **Datatokens** - tokenized access control
- **Ocean Market** - a data exchange webapp
- **Deployed to >1 chains** - Eth mainnet, Polygon, Moonriver, ..
- **Edge computing (Compute-to-Data)** - preserve privacy, etc



# Ocean Datatokens

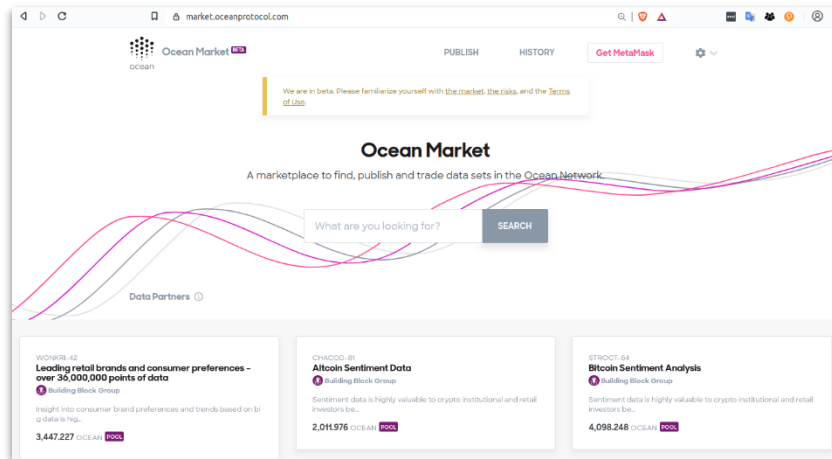
Ocean makes it easy to publish data services (deploy and mint ERC20 datatokens), and to consume data services (spend datatokens). Crypto wallets, exchanges, and DAOs become *data* wallets, exchanges, and DAOs.



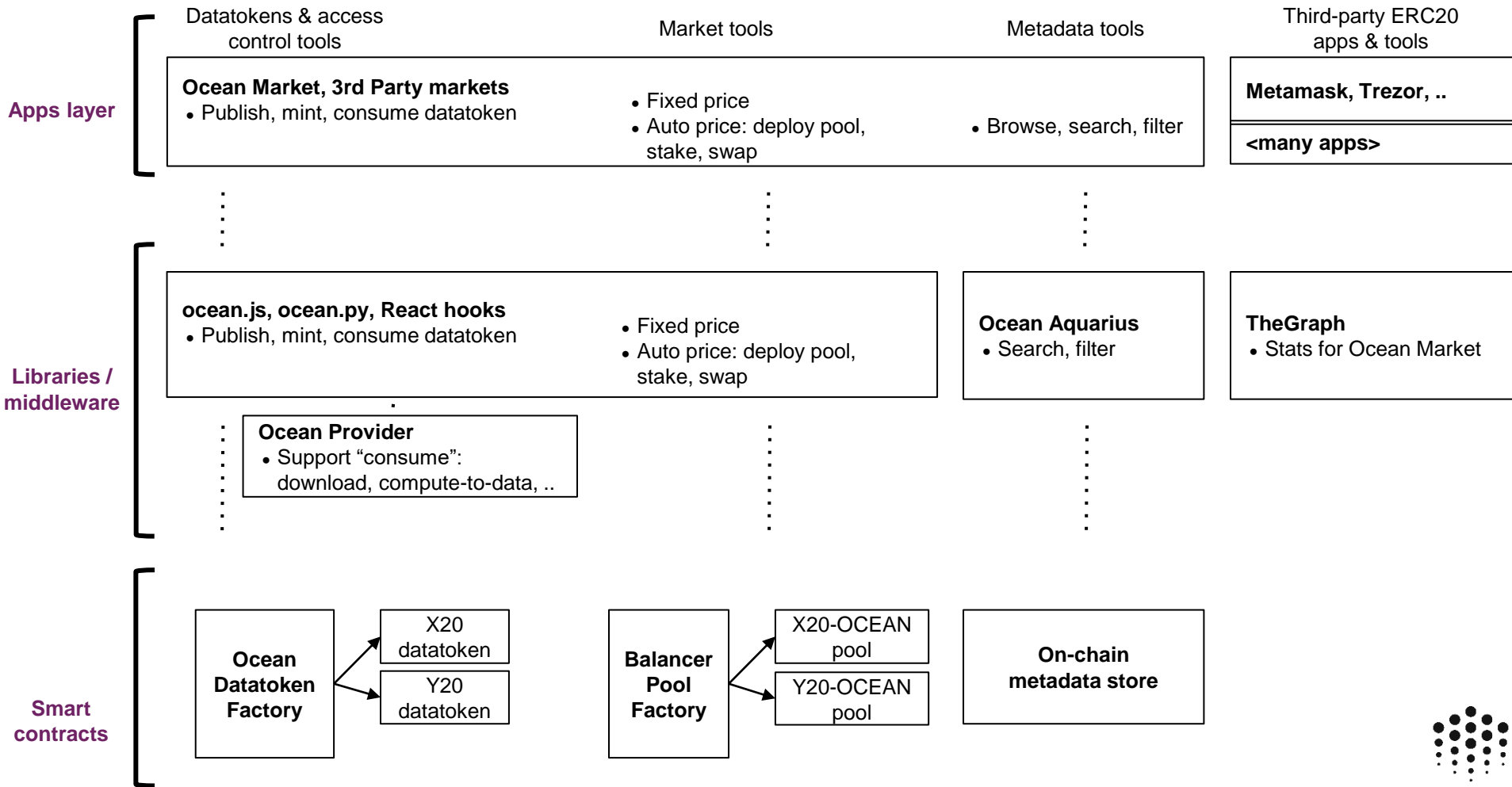
# Ocean Market

market.oceanprotocol.com

- It's a decentralized exchange (DEX), tuned for data.
- Webapp + datatokens + AMMs (Balancer)
- Actions:
  - publish data
  - buy & sell data
  - consume data
  - stake on data (curate)









# Intro to Ocean: Ocean Market

# Ocean Market: Splash Page

market.oceanprotocol.com

We are in beta. Please familiarize yourself with [the market](#), [the risks](#), and the [Terms of Use](#).

Ocean Market **v3** PUBLISH PROFILE

Search... Reconnecting...

## Ocean Market

A marketplace to find, publish and trade data sets in the Ocean Network.

### Bookmarks


Your bookmarks will appear here.

### Highest Liquidity

QUICRA-0	LUMSTA-42	EXCANE-93
<b>DataUnion.app - Image &amp; Annotation Vault</b> DataUnion.app Notice This dataset and the software stack behind it are under constant de...	<b>Product Pages of 1'044'709 Products on Amazon.com (pro...</b> Innovation Atelier SA Result of scraping of Amazon.com product page data over H1 2018, obtai...	<b>EVO/2MP/TRFC/DE/200K Weekly Collector</b> Evotegra GmbH Evotegra - EVO/2MP/TRFC/DE/200K German Traffic Data for Machine Lear...
210.354 OCEAN POOL	82,862.46 OCEAN POOL	1,511.099 OCEAN POOL



# Ocean Market: Publish Flow, for an Initial Data Offering

 **Ocean Market** BETA PUBLISH

## Publish

Highlight the important features of your data set to make it more discoverable and catch the interest of data consumers.

Given the beta status, publishing on Rinkeby first is strongly recommended. Please familiarize yourself with [the market](#), [the risks](#), and the [Terms of Use](#).

**Title\***

Enter a concise title.

**Description\***

Add a thorough description with as much detail as possible. You can use [Markdown](#).

**File\***

 ADD FILE

Please provide a URL to your data set file. This URL will be stored encrypted after publishing.

**Sample file**

 ADD FILE

Please provide a URL to a sample of your data set file. This file should reveal the data structure of your data set, e.g. by including the header and one line of a CSV file. This file URL will be publicly available after publishing.

**Access Type\***

Please provide a URL to a sample of your data set file. This file should reveal the data structure of your data set, e.g. by including the header and one line of a CSV file. This file URL will be publicly available after publishing.

**Access Type\***

Choose how you want your files to be accessible for the specified price.

**Datatoke Name & Symbol\***

The datatoken for this data set will be created with this name & symbol.

**Author\***

Give proper attribution for your data set.

**Tags**

Separate tags with comma.

**Terms & Conditions\***

Ocean Marketplace Terms and Conditions (this "Agreement") is made and entered into by and between Ocean Protocol Foundation Ltd., with office at The Commerz @ Irving, 1 Irving Place, #08-11, Singapore, 369546 Singapore ("Ocean") and the legal entity set forth in the Account Information ("Customer"). It governs Customer's access to and use of the Ocean Marketplace (as defined below) and takes effect on the date of its acceptance by Customer (the "Effective Date"). Customer represents being lawfully able to enter into contracts and having legal authority to bind Customer's entity.

**DEFINITIONS**

"Service" means all websites, software and services offered and operated by

I agree to these Terms and Conditions

SUBMIT RESET FORM



# Example Data Asset, for Fixed Price



Ocean Market BETA

PUBLISH

HISTORY

Get MetaMask



## eBay DATASET - 10 Million Data Points (1,000,000 Product Listings)

### Data Reservoir

Exceptional Whale Token – EXCWHA-70 ↗

Published by [0x98EA\\_16E4](#) — [Etherscan](#)



This dataset has a massive total of over 10 million data points from over 1,000,000 product listings on eBay using the electronics category. This dataset is from the first week of November 2020.

- Updated monthly

### What's included in the dataset?

The dataset is in xlsx format and each line shows 10 data points with the date & time scraped. The following is included in this dataset:

- \*Seller name
- \*Seller rating
- \*Item category
- \*Item ID

USE

POOL

TRADE



2,639.166 OCEAN POOL  
= €1,211.94

BUY

For using this data set, you will buy 1 EXCWHA-70 and immediately spend it back to the publisher and pool.

■ No account connected

Please connect your Web3 wallet.



# Example Data Asset, with Automatic Price Discovery (via AMM)

The screenshot displays the Ocean Market interface. At the top left is the Ocean Market logo with a 'BETA' tag. Navigation links for 'PUBLISH' and 'HISTORY' are visible, along with a 'Get MetaMask' button and a settings icon. The main heading is 'AtlantisStream.io - Realtime Consumer Data Streams'. The asset listing on the left includes the title 'Atlantis Streams', the publisher 'Meretricious Manatee Token - MERMAN-13', and a notice dated 11/17/2020 stating the asset is pre-alpha. A list of social media links (Website, Newsletter, Telegram, Twitter, Discord, Github) and business contact information are provided. On the right, a trade modal is open, showing a price of 289.698 OCEAN (equivalent to €132.88) and a 'BUY' button. A warning indicates 'No account connected' and prompts the user to connect their Web3 wallet.

**Ocean Market** BETA

PUBLISH HISTORY [Get MetaMask](#) ⚙️

## AtlantisStream.io - Realtime Consumer Data Streams

**Atlantis Streams**

Meretricious Manatee Token - MERMAN-13  
Published by [0x4f40...50B3](#) - Etherscan

Atlantis Stream is a crowdsourced dataset of real-time consumer data streams.

**Notice (11/17/2020)**

Atlantis Stream is currently pre-alpha, and will be migrating to compute-to-data when it becomes available. Stay up to date on any of our official channels below:

- Website
- Newsletter
- Telegram
- Twitter
- Discord
- Github

For business inquires:

- Contact [our founder](#)
- Email us at [team@atlantisstream.io](mailto:team@atlantisstream.io)

**How it works.**

**USE** POOL TRADE

No file info available

**289.698 OCEAN** POOL  
= €132.88

**BUY**

For using this data set, you will buy 1 MERMAN-13 and immediately spend it back to the publisher and pool.

**No account connected**  
Please connect your Web3 wallet.

# Example Data Asset: A Data Union

The screenshot displays the Ocean Market interface. At the top left is the Ocean Market logo with a 'BETA' badge. Navigation links for 'PUBLISH' and 'HISTORY' are visible, along with a 'Connect Wallet' button and a settings icon. The main heading is 'Swash - Consumer Browsing Data'. The asset listing includes the publisher 'SwashData Tech Oy', the token 'Tasty Lobster Token - TASLOB-45', and publication details. A descriptive paragraph explains that Swash is creating a Data Union by crowdsourcing user surfing data. A 'Use cases' section lists market intelligence and advertising optimization. An update from November 2020 provides statistics on data points and union members. On the right, a pricing panel shows the asset is available for 31,958.954 OCEAN (worth €14,448.80) and includes a 'BUY' button. A notification states 'No account connected' and prompts the user to connect their Web3 wallet.

**SwashData Tech Oy**

Tasty Lobster Token – TASLOB-45 ↗  
Published by SwashData Tech Oy — Home ↗ Twitter ↗ Etherscan ↗

Swash is creating the world's first **Data Union**. It crowdsources users' surfing data through a browser plugin (available on Chrome, Firefox, Brave, Edge, and more) and shares profits with users. This lets Swash provide data buyers with unrivaled zero-party consumer data at scale, from all over the web, guaranteeing data quality and user consent. The increasing number of users will grow the value of Swash data assets over time.

**Use cases**

Market intelligence, Consumer insights, E-commerce analytics, AI/ML, and Advertising optimisation

**UPDATE: November 21th 2020:**

- Number of data points: 800K (+100k since last update)
- Data Union members: 1600 (+100 since last update)
- Coverage: Worldwide

**USE** POOL TRADE

zip  
68.85 MB

**31,958.954** OCEAN POOL  
= €14,448.80

**BUY**

For using this data set, you will buy 1 TASLOB-45 and immediately spend it back to the publisher and pool.

**No account connected**  
Please connect your Web3 wallet.

# Ocean is multi-chain

[blog.oceanprotocol.com/ocean-makes-multinetwork-even-simpler-c3ec6c0cbd50](https://blog.oceanprotocol.com/ocean-makes-multinetwork-even-simpler-c3ec6c0cbd50)

The screenshot shows the Ocean Market website interface. At the top, there is a navigation bar with the Ocean Market logo, 'PUBLISH', and 'PROFILE' buttons. A search bar and a user profile dropdown (Ox5dc...5497) are also present. A pink arrow points to a 'Networks' dropdown menu that is open, showing a list of blockchain networks. The 'Main' section includes ETH, Polygon, and BSC, all of which are checked. The 'Test' section includes ETH Ropsten, ETH Rinkeby, Polygon Mumbai, Moonbase Alpha, and GAIA-X Testnet, all of which are unchecked. Below the network selection, the main content area features the 'Ocean Market' title and a subtitle: 'A marketplace to find, publish and trade data sets in the Ocean Net'. There are also sections for 'Bookmarks' and 'Highest Liquidity'. At the bottom, three data set cards are displayed, each with a title, description, and price in OCEAN POOL.

market.oceanprotocol.com

We are in beta. Please familiarize yourself with [the market](#), [the risks](#), and the [Terms of Use](#).

Ocean Market **V3** PUBLISH PROFILE

Search...

Ox5dc...5497

## Ocean Market

A marketplace to find, publish and trade data sets in the Ocean Net

**Bookmarks**  
Your bookmarks will appear here.

**Highest Liquidity**

**Networks**  
Switch the data source for the interface.

Main

- ETH
- Polygon
- BSC

Test

- ETH Ropsten
- ETH Rinkeby
- Polygon Mumbai
- Moonbase Alpha
- GAIA-X Testnet

↓ DATA SET

QUICRA-0  
**DataUnion.app - Image & Annotation Vault**  
DataUnion.app  
Notice This dataset and the software stack behind it are under constant development...  
**692.868** OCEAN POOL

↓ DATA SET

LUMSTA-42  
**Product Pages of 1'044'709 Products on Amazon.com (proces...**  
Innovation Atelier SA  
Result of scraping of Amazon.com product page data over H1 2018, obtained using ne...  
**83,942.031** OCEAN POOL

↓ DATA SET

EXCANE-93  
**EVO/2MP/TRFC/DE/200K Weekly Collector**  
Evotegra GmbH  
Evotegra - EVO/2MP/TRFC/DE/200K German Traffic Data for Machine Learning ...  
**1,523.022** OCEAN POOL



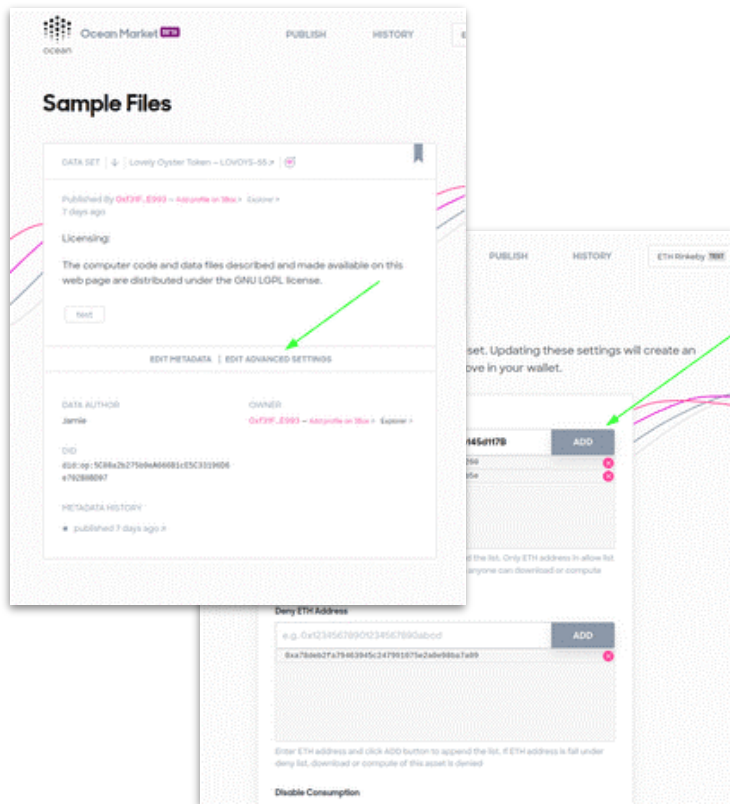
# Fine-grained permissions

[blog.oceanprotocol.com/fine-grained-permissions-now-supported-in-ocean-protocol-4fe434af24b9](https://blog.oceanprotocol.com/fine-grained-permissions-now-supported-in-ocean-protocol-4fe434af24b9)

How to handle data exchange for

- 🏥 Medical data only for credentialed EU researchers
- 🚗 Selling automotive data within a consortium
- 🇩🇪🇸🇦 Sharing data across offices in a multinational ?

@oceanprotocol fine-grained permissions handles this



# Example Data Asset: Music Samples (from a Platinum-Selling Artist)

The screenshot displays the Ocean Market interface for a music sample listing. The page title is "PVLACE 808 Mafia Melody Compositions / Samples". The listing is for "Denys Berger" and is an "Irksome Cormorant Token – IRKCOR-52" published by "0x65e0...87A0". The listing includes a detailed description of the sample, production credits, and update frequency. A right-hand panel shows the asset's price as 733.634 OCEAN (€337.18) and a "BUY" button. A "No account connected" warning is also present.

**Ocean Market BETA** PUBLISH HISTORY [Get MetaMask](#) ⚙️

## PVLACE 808 Mafia Melody Compositions / Samples

**Denys Berger**

Irksome Cormorant Token – IRKCOR-52 ↗  
Published by [0x65e0...87A0](#) – Etherscan ↗

You gain exclusive access to a weekly updated folder that already include 15 melody compositions by Multi-Platinum, Billboard #1, BMA & Grammy Nominated Music Producer PVLACE of 808 Mafia.

Productions Credits include following artists Migos, Future, Young Thug, Lil Baby, Rich The Kid and many more for full productions credits check following website: <https://genius.com/artists/Pvlace>

Updates will be made every Friday on 6PM UTC Time and will include 3 more melody compositions

The melodies are royalty-free for everybody purchasing it and can be used for your own compositions. Melody are marked with the specific BPM

For verification of this market listing feel free to reach out on my verified social media profiles: <https://www.instagram.com/pvlace808mafia/>  
<https://twitter.com/pvlace808mafia>

**Sample Data**  
[DOWNLOAD SAMPLE](#)

music compositions pvlace 808-mafia fl-studio  
cubase ableton music-production

**USE** POOL TRADE

html **733.634 OCEAN** POOL  
= €337.18

[BUY](#)

For using this data set, you will buy 1 IRKCOR-52 and immediately spend it back to the publisher and pool.


**No account connected**  
Please connect your Web3 wallet.



# Intro to Ocean: Ocean Ecosystem

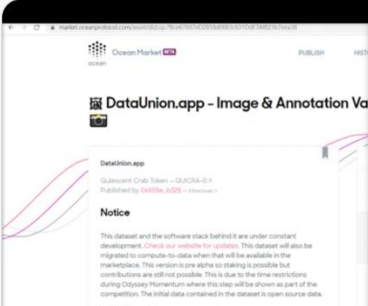
# Ocean Market: Data Hunters

## Several startups launched in <1 mo

 **DataUnion.App** @Dataunion.A · Nov 15

There is a first review on YouTube about the dataset:  
[youtu.be/CtETKKnX1fk](https://youtu.be/CtETKKnX1fk)  
 Thank you for that @profit\_ai

#OceanProtocol



Notice

This dataset and the software stack behind it are under constant development. Check our website for updates. This dataset will also be migrated to complete its data when that will be available in the marketplace. This version is as close as starting possible but contributions are still not possible. This is due to the time restrictions during Chicago's Homebrew where this step will be shown as part of the competition. The total data contained in the dataset is open source data.



 **OpenData**  **Data Brokers**  
 @databrokers1 Follows you

 **datawhale** @realdatwhale · Nov 25

Our proprietary staking rating formula for "Directory" will be based on metrics that don't lie: numbers.

The highest weightage for the rating will be based on number of sales, number of transactions & decentralization.

Our TREPTEL-36 sold more than all top pools combined 🐳

Dataset Title	Dataset Type	Dataset Size	Average File Size	Number of Files	Number of Products	Number of Pools	Total Transactions	Total Sales	24hr Sales Rank (by volume)
Open Marketplace Director & Pool Settings	JSON	300	248.000	30	6.238	289	284	284	210
Open Marketplace Data	JSON	20	1.528.000	1	6.422	14	1.482	1.482	187
Product Pages of 1047 100 Products on Amazon (processed data)	JSON	30	138.000	1	2.022	14	126	126	197
Leading Retail Brands and consumer preferences over 30,000,000 across of data	JSON	25	40.511	1	2.234	14	242	242	203
PLACES 200+ Retail Brands Competitors / Services	JSON	65	35.000	3	851	18	200	200	218
after (Kaggle) 10 Million Data Points (10,000,000 Product Listings)	JSON	9	42.893	1	400	4	121	121	223
AI/ML Sentiment Data	JSON	20	25.000	1	1.704	18	467	467	224
AI/ML Sentiment Analysis	JSON	5	42.893	1	400	4	121	121	225
Blockchain app - Image & Annotation Tools	JSON	1.000	862.200	1	100	85	172	172	226
Blockchain app - Amazon Consumer Data Streams	JSON	10	188.500	1	802	3	262	262	227
Blockchain app - Amazon Consumer Data Streams	JSON	10	188.500	1	802	3	262	262	228
Blockchain app - Amazon Consumer Data Streams	JSON	10	188.500	1	802	3	262	262	229
Blockchain app - Amazon Consumer Data Streams	JSON	10	188.500	1	802	3	262	262	230
Blockchain app - Amazon Consumer Data Streams	JSON	10	188.500	1	802	3	262	262	231
Blockchain app - Amazon Consumer Data Streams	JSON	10	188.500	1	802	3	262	262	232
Blockchain app - Amazon Consumer Data Streams	JSON	10	188.500	1	802	3	262	262	233
Blockchain app - Amazon Consumer Data Streams	JSON	10	188.500	1	802	3	262	262	234
Blockchain app - Amazon Consumer Data Streams	JSON	10	188.500	1	802	3	262	262	235



**datapplications**  
 Solving the worlds data challenges and creating a better future

Following

**Datapplications**  
 @DataApplications Follows you

ive to provide businesses & researchers with high quality, es new market insights, & drives innovation.

20  
 wers



**DATA RESERVOIR**  
 DATA RESERVOIR

Following

**Data Reservoir**  
 @DataReservoir Follows you

Provider of valuable datasets on the Ocean Marketplace.

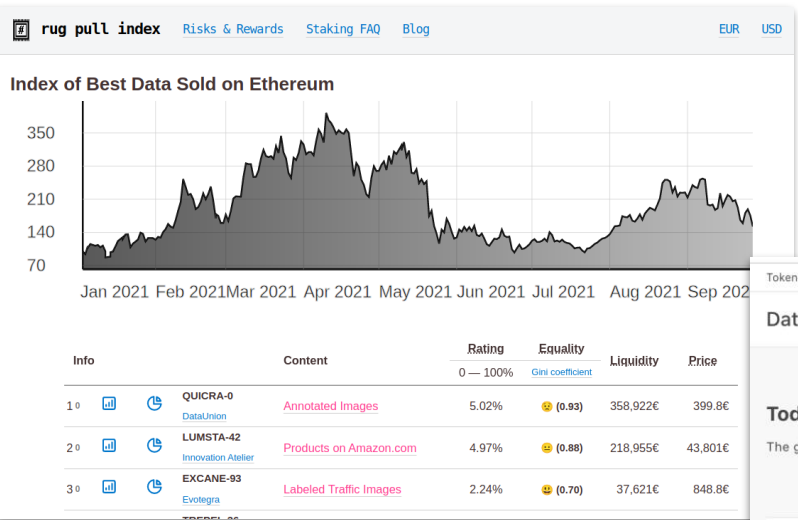
Joined November 2020

70 Following 329 Followers



# Ocean Market Data Indexes

Quality Metrics from the Community, Free & For Sale



Tokens: 524 OCEAN Price: \$0.42 OCEAN Market Cap: \$148,650,190.67 Tokens Volume

## Data Market Cap

## Today's Token Prices by Market Cap

The global OCEAN market cap is \$30,449,817.34, a ↕ 9.8% change over the

Name	Price	Market Cap	Volume (24h)
<b>Intransigent Fugu Token</b> INTFUG-26	\$9,998.00	\$9,998,000.00	\$9,998,000.00
<b>Sclerotic Eel Token</b> SCLEEL-38	\$3,115.00	\$3,115,000.00	\$0.00
<b>Jocular Clam Token</b> JOCCLA-51	\$2,100.00	\$2,100,000.00	\$0.00

**Bridging.tech Datasets** @BDatasets

Check out this datatoken overview of our datapool: Ocean Market [Pool trends and charts](#)

Price to buy increased to 29 \$ocean because in the last 2 days around 30 'WONPEL-82' were traded out (not bought).

Timeframe	\$Ocean Tx	\$OCEAN In	\$OCEAN Out	Users
20d 19hr	296	221,579	-201,257	91
	WONPEL-82 Tx: 95	WONPEL-82 In: 770	WONPEL-82 Out: 451	Logout with address

Ocean Market - Pool trends and charts - Bridging.tech Datasets

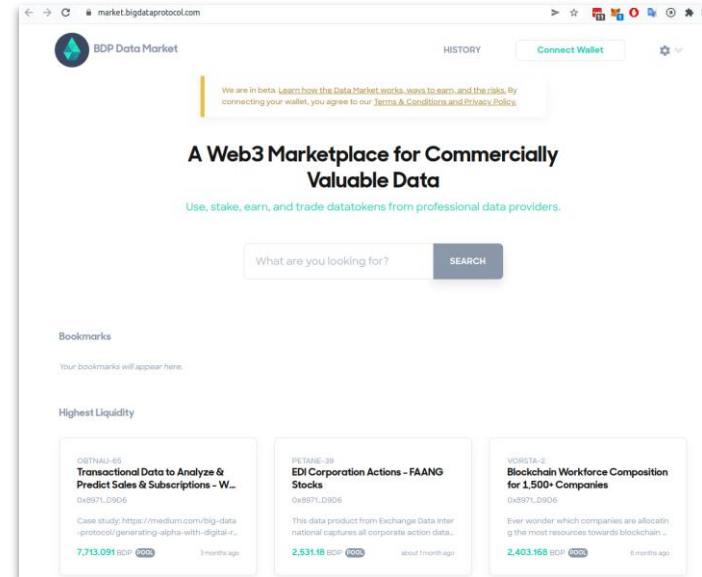
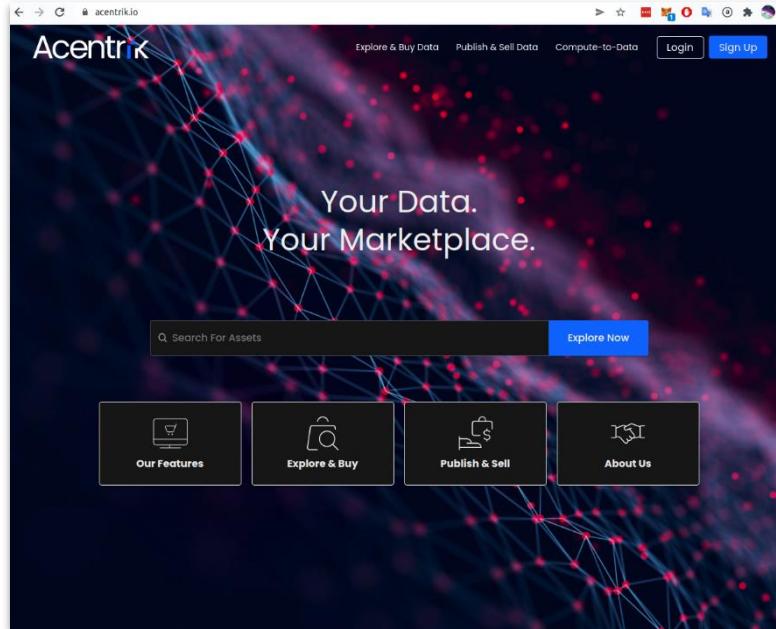
WONPEL-82: Ocean Charts - Datatokens IN vs OUT



ocean

# For an *economy*, 1000s of data marketplaces

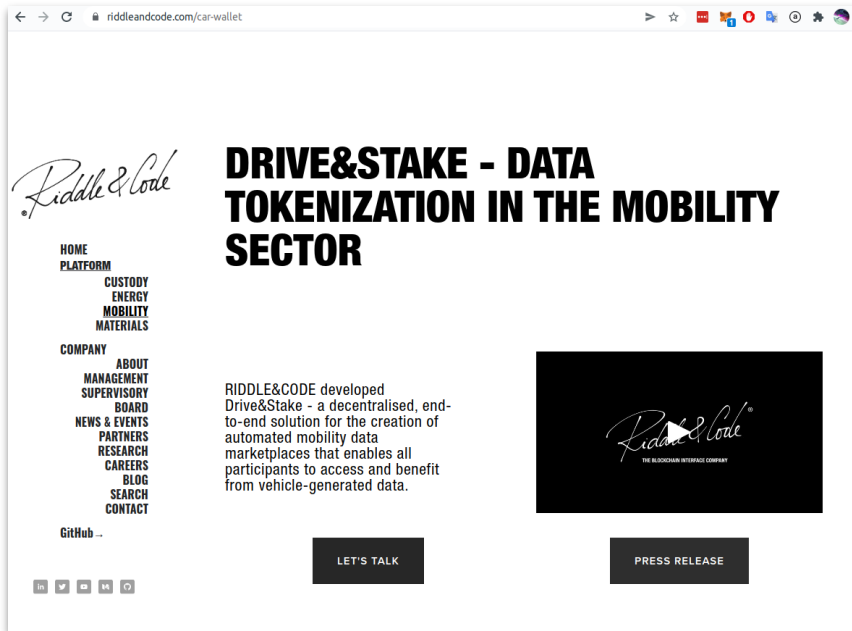
And the forks have begun:)





# Riddle & Code: Drive & Stake

Mobility data marketplaces for all participants to access and benefit from vehicle-generated data



The screenshot shows a web browser window with the URL `riddleandcode.com/car-wallet`. The page features the Riddle & Code logo in a script font. The main heading is **DRIVE&STAKE - DATA TOKENIZATION IN THE MOBILITY SECTOR**. A navigation menu on the left includes sections for HOME PLATFORM, COMPANY, and GitHub. The main text describes RIDDLE&CODE as a decentralized, end-to-end solution for creating automated mobility data marketplaces. A central image shows the Riddle & Code logo on a dark background. At the bottom, there are buttons for 'LET'S TALK' and 'PRESS RELEASE'.

HOME PLATFORM

- CUSTODY
- ENERGY
- MOBILITY
- MATERIALS

COMPANY

- ABOUT
- MANAGEMENT
- SUPERVISORY BOARD
- NEWS & EVENTS
- PARTNERS
- RESEARCH
- CAREERS
- BLOG
- SEARCH
- CONTACT

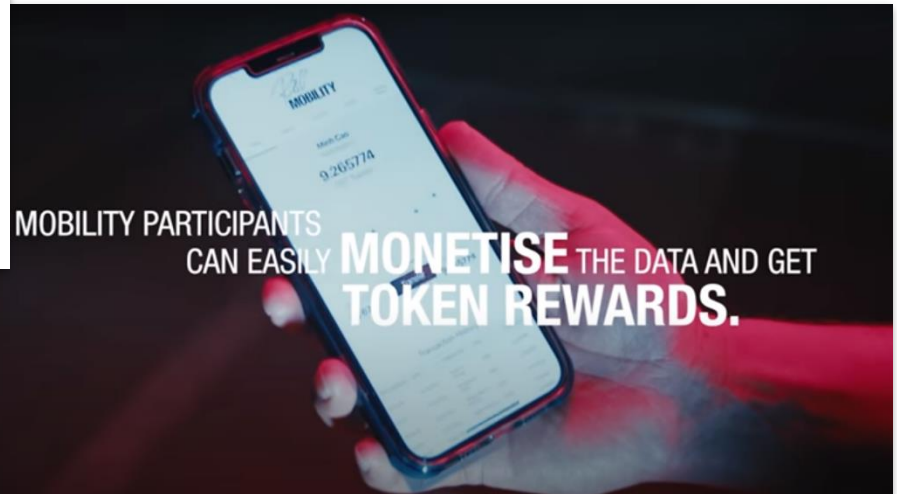
GitHub

**DRIVE&STAKE - DATA TOKENIZATION IN THE MOBILITY SECTOR**

RIDDLE&CODE developed Drive&Stake - a decentralised, end-to-end solution for the creation of automated mobility data marketplaces that enables all participants to access and benefit from vehicle-generated data.

LET'S TALK

PRESS RELEASE




The image shows a hand holding a smartphone with a red case. The screen displays a 'MOBILITY' app interface. At the top, it says 'MOBILITY'. Below that, there's a 'My Car' section with the number '9 265774'. The background is dark with a red glow.

MOBILITY PARTICIPANTS CAN EASILY **MONETISE** THE DATA AND GET **TOKEN REWARDS.**

# Drive & Stake is Compute-to-Data \* SGX





[blog.oceanprotocol.com/compute-to-data-is-now-available-in-ocean-market-58868be52ef7](https://blog.oceanprotocol.com/compute-to-data-is-now-available-in-ocean-market-58868be52ef7)


 **Trent McConaghy**  
@trentmc0

Did you know that the [@riddleandcode](#) - [@oceanprotocol](#) stack integrates two complementary privacy-preserving technologies?

- Ocean Compute-to-Data (C2D) -> data stays with owner
- Intel SGX -> trusted execution environment

### OUR PARTNERS

 <b>EFS</b> <small>CONSULTING</small>	 <b>ocean</b>	 <b>ELOOP</b>	 <b>intel</b>
<p>EFS - the leading consultancy in the mobility sector - brings its understanding of automotive OEMs functions and expertise in determining the strategy leading to the best practical solutions.</p>	<p>Leveraging Ocean protocol that allows businesses and individuals to exchange and monetize data, Drive&amp;Stake overcomes the tradeoff between the benefits of using private data and the risks of exposing it.</p>	<p>Focusing on green mobility solutions &amp; environment, ELOOP, collaborating with RIDDLE&amp;CODE, tests different use cases related to connected EV cars, including CO2 footprint, charging station management and data monetisation.</p>	<p>RIDDLE&amp;CODE utilises Intel Software Guard Extensions (Intel SGX) to deliver the highest level of security for the solution.</p>

 **RIDDLE&CODE** @riddleandcode · Nov 2

Drive&Stake, the industry-first marketplace that unlocks vehicle-generated data launches today. Together with [@oceanprotocol](#), [#EFS](#) & [@eloopecarsharing](#), we empower all participants in the mobility ecosystem to share, access & collect tokens for staking vehicle-generated data. 🚀

 **RIDDLE&CODE**  
@riddleandcode

Drive&Stake, the industry-first marketplace that unlocks vehicle-generated data launches today. Together with [@oceanprotocol](#), [#EFS](#) & [@eloopecarsharing](#), we empower all participants in the mobility ecosystem to share, access & collect tokens for staking vehicle-generated data. 🚀



THE MOBILITY SECTOR IS UNDERGOING  
A PROCESS OF MASSIVE  
**TRANSFORMATION.**

2:01 11.7K views

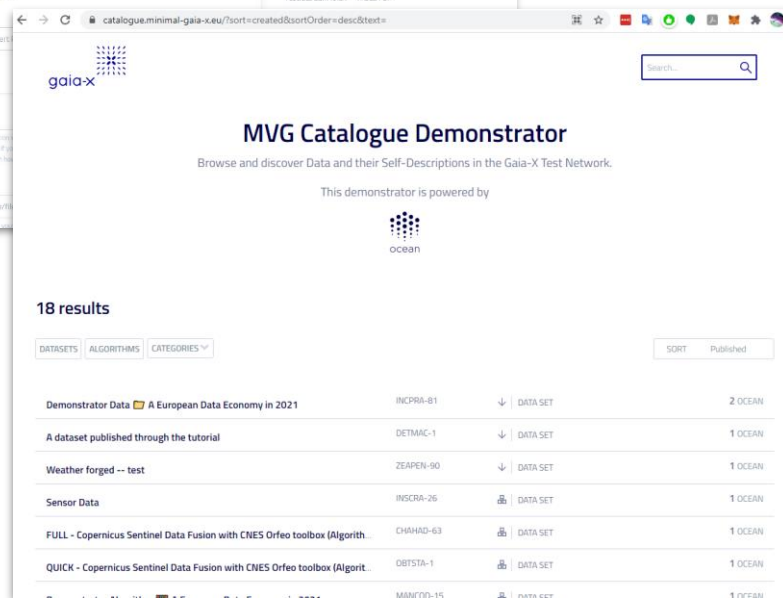
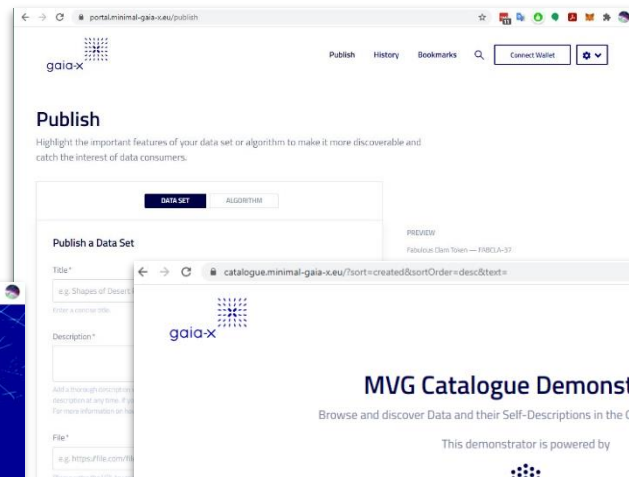
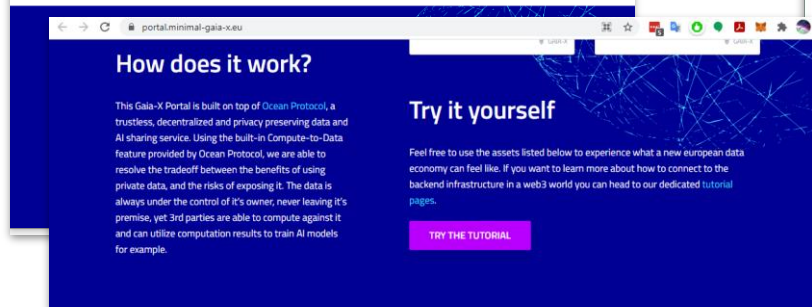
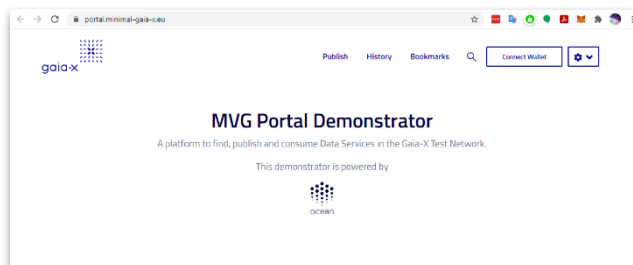
11:04 AM · Nov 2, 2021 · Twitter Web App






# DeltaDAO: Gaia-X Demonstrator

<https://portal.minimal-gaia-x.eu>



# Raven Protocol: More AI/ML algs

 **Sherman Lee** ✓  
@SHERM8N

Publishing ML algos on @oceanprotocol is very satisfying.

Anyone in the world can run them on any dataset with minimal effort thanks to Compute to Data.

Do we call these #DeAI legos?

• **SupplyDefi** @SupplyDefi · Sep 14  
@raven\_protocol x @oceanprotocol  
Building together 🚀 with federated learning on the radar 🌟  
\$OCEAN \$RAVEN  
Screenshot from the ocean marketplace 📸

about 2 hours ago · updated about 2 hours ago

Wine quality dataset is a classification dataset to train classification algorithms like Logistic Regression, KNN Classifier, SVM, and other algorithms

dataset wine-dataset

DATA AUTHOR  
Raven Protocol & Ocean Protocol

OWNER  
0xAcca...f83 - Explorer

DID  
did:op:12b7cd8a6e7d81b48418d388d5a60843a8c  
BF

Select an algorithm to start a compute job

Search by title, datatoken, or DID...

- Random Forest Classifier v1.0 1
- SVM Classifier v1.0 1
- Naive Bayes Classifier v1.0 1
- MLP Classifier v1.0 1
- Decision Tree Classification v1.0 2
- KNN Classification Algorithm v1.0 1
- Logistic Regression v1.0 1

1:28 PM · Sep 17, 2021 · Twitter for iPhone

Raven Protocol 1k Followers About Follow

## Machine Learning Series: Using Logistic Regression for Classification in Ocean's Compute-to-Data

Raven Protocol · 15 min read · Draft

### 5. Walk-through: Publishing Logistic Regression Algo

After learning how to publish a dataset, one may want to do some kind of action on that data. This is the innovation of Ocean's Compute-to-Data. Users can easily select an algorithm to start a compute job. Let's walk through how to publish a machine learning algorithm that can use the dataset we previously published. The algorithm of choice? You guessed it, Logistic Regression.

- 1. Setup Polygon Network on MetaMask**  
Polygon is where we are publishing the datasets and algorithms for its speed & cost. One could also use Ethereum or Binance Smart Chain if they wished. Ocean already has great documentation on setting up Polygon: <https://docs.oceanprotocol.com/tutorials/polygon-bridge/>  
<https://blog.oceanprotocol.com/ocean-on-polygon-network-8abad19cbf47>
- 2. Open Ocean Market Publish Page**  
Fire up the Ocean Market UI and select algorithm: <https://market.oceanprotocol.com/publish>

**Publish**  
Highlight the important features of your data set or algorithm to make it more discoverable and catch the interest of data consumers.



# Datarella / Mobix + Bosch + Fetch.ai



# UTU: Recommendations

<https://defi-portal.utu.io/ocean>

NAME	STATUS	PUBLISHER	YOUR NETWORK	TIMES CONSUMED
100K+ Historical match results of top European Football Club Mc Daymond	Purgatory	Mc Daymond		0
Analysis of the Leading Brands Mentioned in Twitter Stravito	Purgatory	Stravito		0
World's Health Statistics Data Influxion	Active	Data Influxion		0
Tesla User Data in Los Angeles Trayvon Kirsh - University of California Berkeley	Active	Trayvon Kirsh - University of California Berkeley		1

**AtlantisStream.io - Realtime Consumer Data Streams**

By Atlantis Streams 4 Data assets

Updated 3 months ago Active

Atlantis Stream is a crowdsourced dataset of real-time consumer data streams.  
Notice (11/17/2020)  
Atlantis Stream is currently pre-alpha, and will be migrating to compute-to-data

## Usage in your network

### USAGE OF THIS DATA ASSETS

#### Consumers

**0** In your network consumed this data asset

#### Liquidity providers

**0** In your network provided liquidity for this data asset

## Signals

Total consumption

**351.23** OCEAN 4 times

Total liquidity

**6,065.453** OCEAN 1 pools

Swap volume

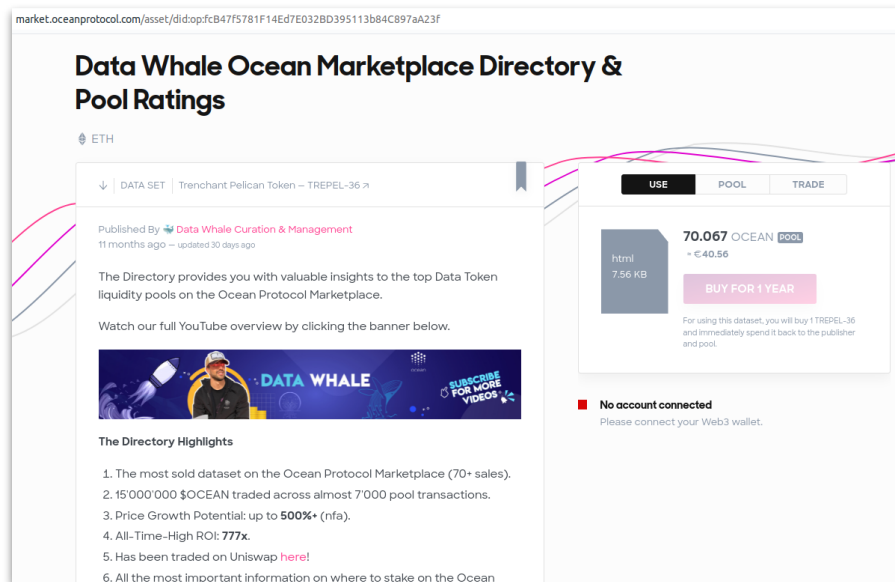
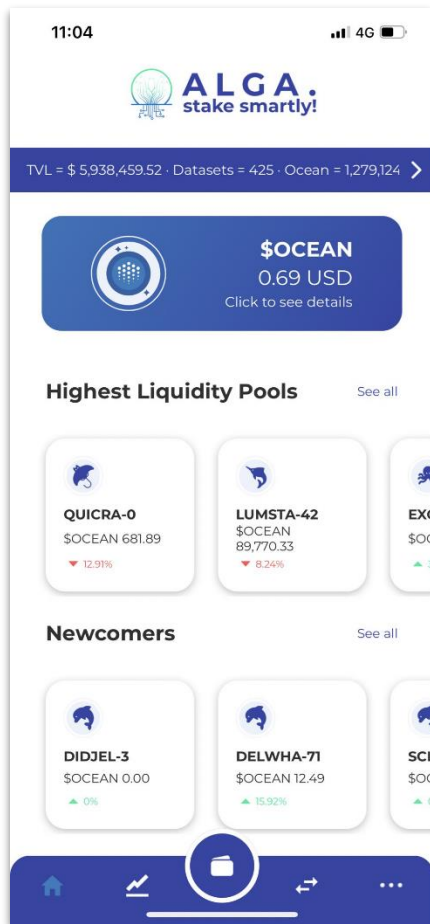
**82,889.423** OCEAN 1 pools

Monthly activity

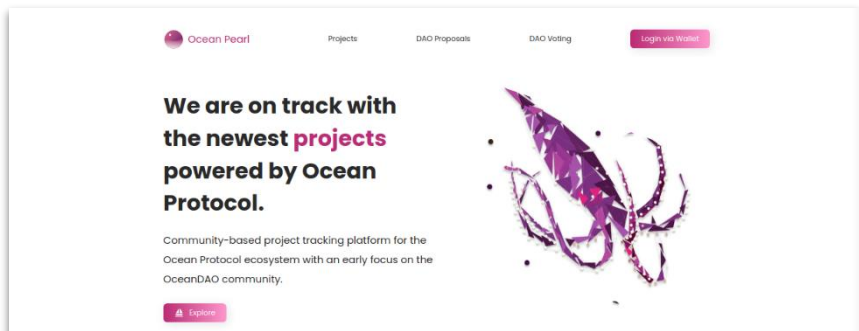
**0** CONSUMPTIONS



# Data Whale: Data Ratings, Data Wallet



# Ocean Pearl: Project Tracker → OceanDAO frontend



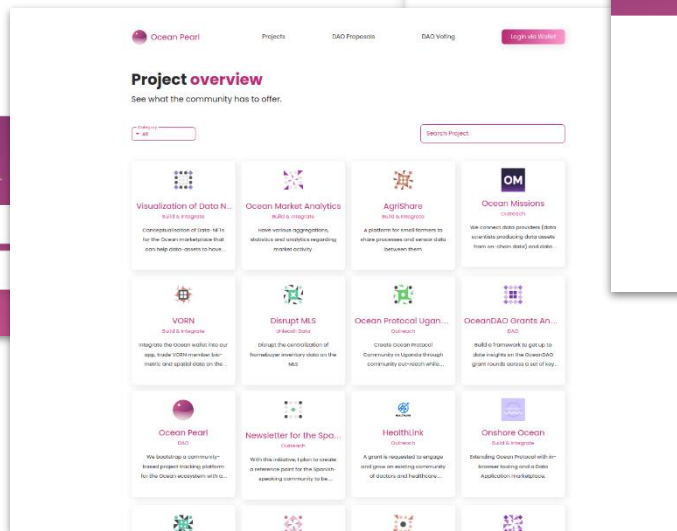
Ocean Pearl

Projects DAO Proposals DAO Voting Login via Wallet

## We are on track with the newest projects powered by Ocean Protocol.

Community-based project tracking platform for the Ocean Protocol ecosystem with an early focus on the OceanDAO community.

Explore















Ocean Pearl

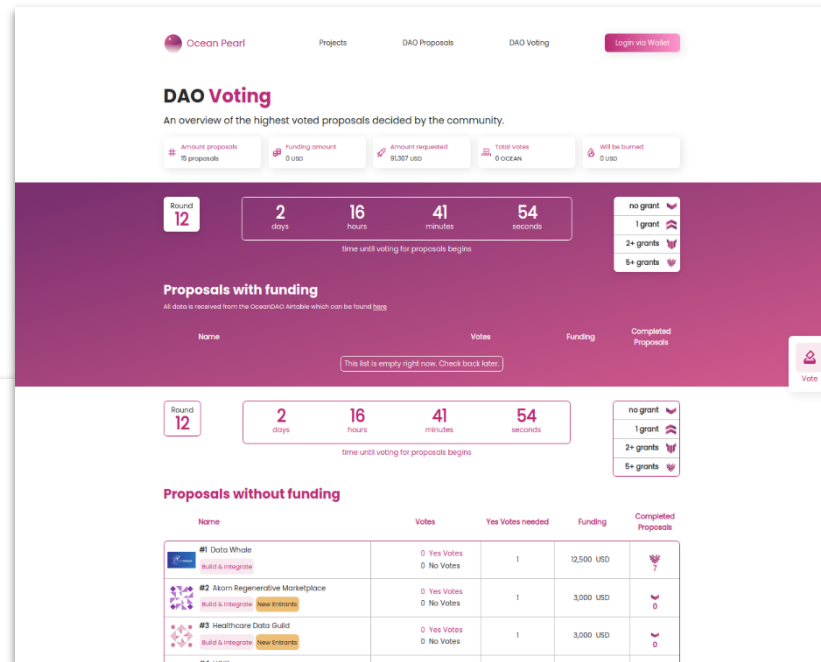
Projects DAO Proposals DAO Voting Login via Wallet

## Project overview

See what the community has to offer.

Search Project

 <p><b>Visualization of Data N...</b> Build &amp; Integrate</p> <p>Connective tissues of data for the Ocean marketplace that can help cross-sectors to thrive.</p>	 <p><b>Ocean Market Analytics</b> Build &amp; Integrate</p> <p>Visual analytics, aggregations, visualizations and analytics engineering, ready-to-use.</p>	 <p><b>AgriShare</b> Build &amp; Integrate</p> <p>A platform for stakeholders to share processes and sensor data between them.</p>	 <p><b>Ocean Missions</b> Outreach</p> <p>We connect data providers (Data) with data-consuming data users (Users on-chain, data) and other.</p>
 <p><b>VORN</b> Build &amp; Integrate</p> <p>Integrates the Ocean wallet into our new, single-identity-based marketplace and spatial data on the...</p>	 <p><b>Disrupt MES</b> Outreach</p> <p>Integrate the contribution of knowledge engineering into the MES.</p>	 <p><b>Ocean Protocol Ugan...</b> Outreach</p> <p>Create Ocean mission/Community to support through community co-creation with...</p>	 <p><b>OceanDAO Grants An...</b> DAO</p> <p>Build a framework to give to data rights on the OceanDAO grants rounds across a set of key...</p>
 <p><b>Ocean Pearl</b> DAO</p> <p>We build the ecosystem for the Ocean Protocol project tracking platform for the Ocean ecosystem with...</p>	 <p><b>Newsletter for the Spo...</b> Outreach</p> <p>With this newsletter, you can create a newsletter for the Ocean ecosystem with...</p>	 <p><b>Healthlink</b> Outreach</p> <p>A grant is needed to manage and grant an existing community of doctors and healthcare...</p>	 <p><b>Onshore Ocean</b> Build &amp; Integrate</p> <p>Extending Ocean Protocol with an onshore learning and data marketplace.</p>



Ocean Pearl

Projects DAO Proposals DAO Voting Login via Wallet

## DAO Voting

An overview of the highest voted proposals decided by the community.

Amount proposals: 15 proposals | Funding amount: 0 USD | Amount requested: 91,367 USD | Total votes: 0 OCEAN | Will be burned: 0 USD

Round 12

2 days | 16 hours | 41 minutes | 54 seconds

time until voting for proposals begins

no grant | 1 grant | 2+ grants | 5+ grants

### Proposals with funding


All data is received from the OceanDAO Airtable which can be found [here](#)

Name	Votes	Funding	Completed Proposals
This list is empty right now. Check back later.			

### Proposals without funding

Name	Votes	Yes Votes needed	Funding	Completed Proposals
#1 Data Whole Build & Integrate	0 Yes Votes 0 No Votes	1	12,500 USD	7
#2 Akom Regenerative Marketplace Build & Integrate	0 Yes Votes 0 No Votes	1	3,000 USD	0
#3 Healthcare Data Guild Build & Integrate	0 Yes Votes 0 No Votes	1	3,000 USD	0

# DataUnion: AI Image Labeling Union

**DataUnion Foundation**  
Unleash Data


added at  
April 19th, 2021

copy project link

Description

We want to give everyone the ability to use their data for a better future and their own profit.

read full proposal



### DAO proposal


Funding Round  
Round 9

Requested Funding  
17500 USD

Project Wallet Address  
0x655efe6eb2021b8cfe22794d90293aec37bb325

vote here

Round	Yes Votes	No Votes	Granted Funding	Granted	View full proposal
3	740138	-	10000	yes	port
4	188499	-	6500	yes	port
5	1014808	500	7500	yes	port
6	1749185	-	27200	yes	port
7	1040709	470103	32000	yes	port
8	1501293	2690452	-	no	port



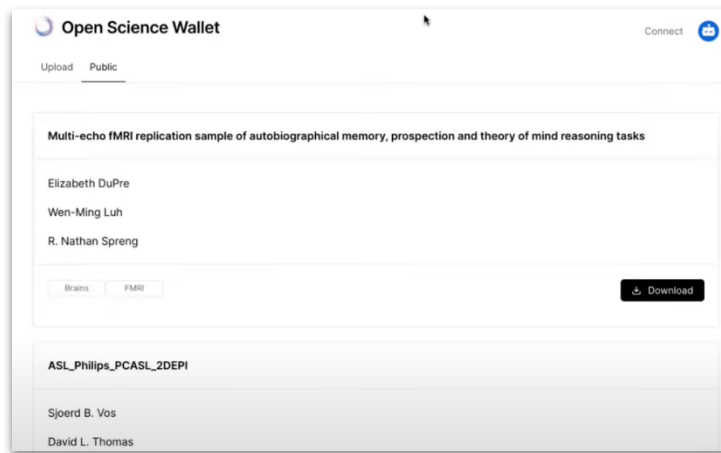
Alpha Datasets Contribute Datatoken Vision Solution Team Contact

TAKE PHOTOS,  
ADD LABELS,  
ANNOTATE IMAGES  
& GET CRYPTO REWARDS

TRY OUR ALPHA APP



# Opscientia: Data DAO around Open Science



## Opscientia DAO Wins Multiple Awards at the EthGlobal Hackathon



Alexandra McCarroll Follow Aug 26 · 2 min read



Opscientia's [data wallet prototype](#) for research data management to promote open science impressed many at the 2021 Web3Weekend ETHGlobal hackathon!



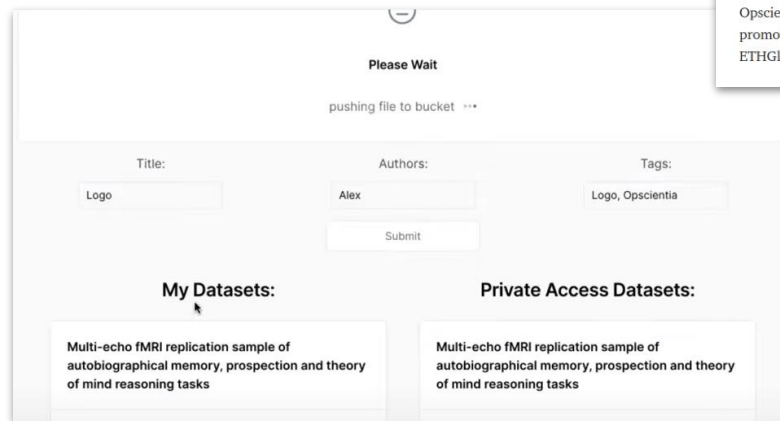
### Opscientia

@opscentia Follows you

We're a community-owned open science ecosystem that unlocks data silos revolutionises collaboration 🧡 and democratises funding 💙

📍 Singapore, Barcelona 🔗 [opsci.io](#) 📅 Joined February 2021

119 Following 294 Followers

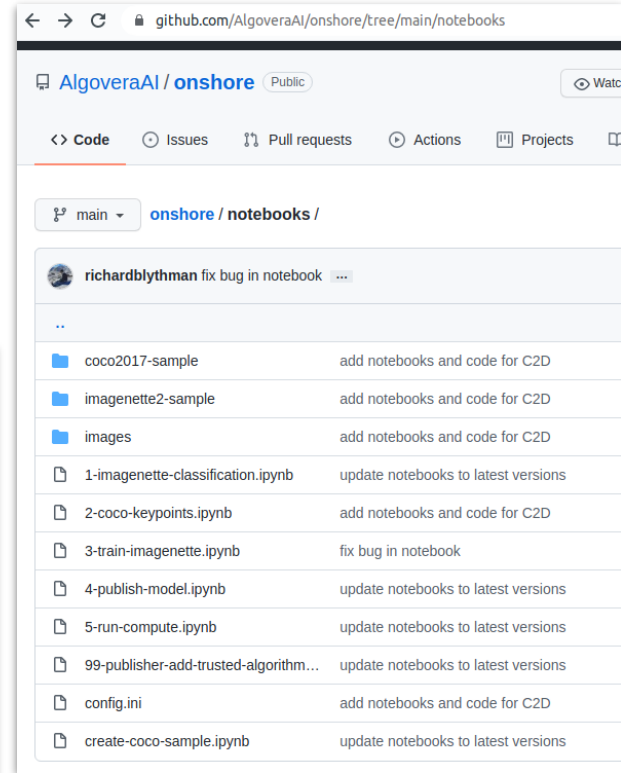
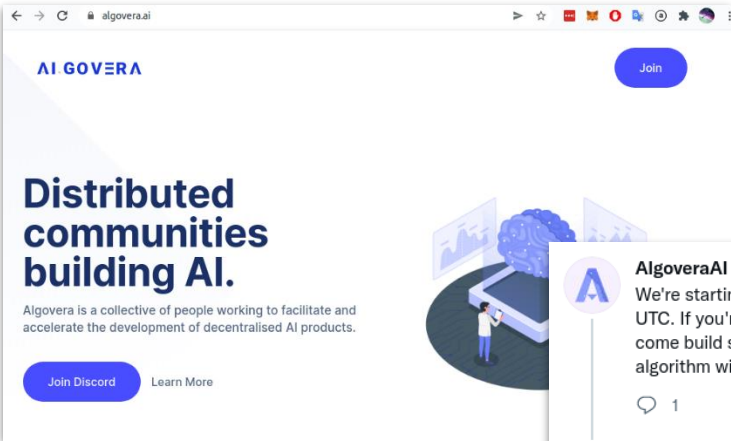


ocean



# Algovera: AI community \* Ocean

algovera.ai



# Vantage Crypto: WSS Integration, Data Market

**Ocean Vantage**  
Build & Integrate

added at May 2nd, 2021 [copy project link](#)

**Description**  
Facilitate data offerings, staking and data consumption on the Ocean Protocol network by empowering users with the ability to analyze any numerical data on the Ocean Protocol network and monetize their processed analytical datasets through an Ocean Streamlined Analytics platform.

[read full proposal](#)

**DAO proposal**

Funding Round: Round 8  
Requested Funding: 17600 USD

DAO Proposals (1)					
Round	Yes Votes	No Votes	Granted Funding	Granted	View full proposal
5	88772	-	7500	no	<a href="#">view full proposal</a>

**Crypto-Market Analytics** for modern analysts

Advanced market data & Next-generation analytics

**VANTAGE CRYPTO** (api)

**Vantage Signals**  
Next generation quantitative analytics and signaling platform

**Modular API Data**  
Buy only the specific data you need, at a HUGE DISCOUNT

**CoinMarketFlow.com**  
Advanced Digital-Asset Screener for innovative traders and API customers

**Vantage Triggers for CRYPTOHOPPER**  
Super power your hopper triggers with Vantage Triggers!

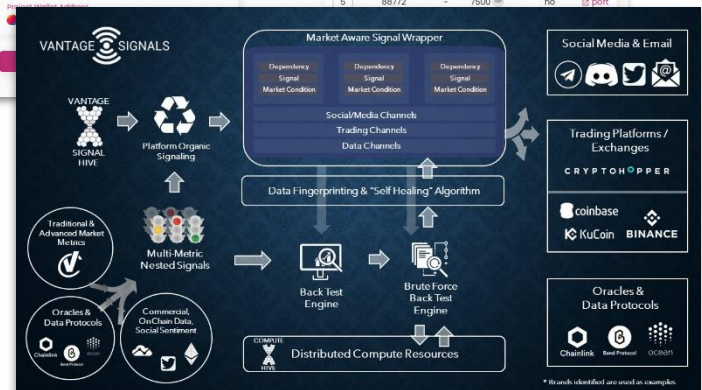
**Advanced market metrics, buy only the specific data you need!**  
Serving some **3.5 million data points producing 5 Billion records daily.**

We offer a first of its kind **Modular API data subscription service.** We enable our API users to choose what data they want, how they want it and how much of it they want.

The order book and order flow data we collect is non-persistent. This data is not available from most exchanges after it is collected, this data is hard to find. We provide two different API interfaces, one for real-time analytics and the other for bulk data backtesting.

- ✓ build your own api subscription interface
- ✓ Pre-canned and discounted plans available
- ✓ APIv2: Served for the minute requested
- ✓ APIv3: Single metric feeds of 60 x bin values
- ✓ Assets by exchanges, globally, regionally
- ✓ Sector Indices
- ✓ Wide variety of traditional and advanced metrics
- ✓ Specialty data (Sector dominance, MDR, OFR, etc)
- ✓ Advanced Order Flow Data
- ✓ Advanced Order Books Data
- ✓ Social Sentiment Trending (Future Plans)
- ✓ 1 minute data resolution
- ✓ Transparent pricing
- ✓ ~85% less expensive than the competition

[Subscribe](#) [Learn More](#)



**Vantage Signals**  
Next generation quantitative analytics and signaling platform

**Modular API Data**  
Buy only the specific data you need, at a HUGE DISCOUNT

**CoinMarketFlow.com**  
Advanced Digital-Asset Screener for innovative traders and API customers

**Vantage Triggers for CRYPTOHOPPER**  
Super power your hopper triggers with Vantage Triggers!

**VANTAGE SIGNALS**

**Social Media & Web:** Supports trading group analysts and the majority of non-automated traders  
**Automated Trading Platforms:** Send signals to almost any trading platforms  
**Signal marketplace:** Monetize processed data by publishing results to a signal marketplace(s)

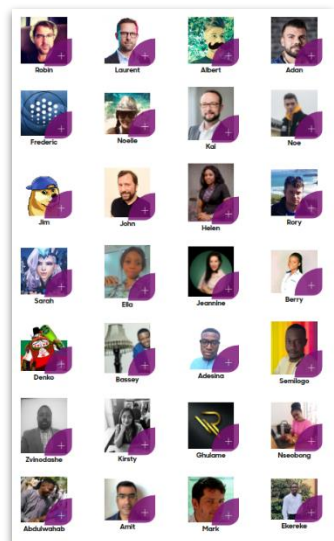
**NO CODING REQUIRED** Focus on financial analysis without having to learn to code. Users don't need to script anything to use our platform, we provide advanced features with an intuitive GUI.

- ✓ Beta online now
- ✓ Signal to Email, Telegram, Discord or Twitter
- ✓ Signal to any automated trading platforms via API, Webhook or WebSocket
- ✓ Monetize on a global marketplace | [CLICK ME](#)
- ✓ Collaborative analytics | p2p, public & team
- ✓ Market aware, self healing signaling
- ✓ First of its kind "Crowd Signaling"
- ✓ Brute force algorithm back-testing
- ✓ Hosted "Compute on demand"
- ✓ Advanced market and social metrics
- ✓ [click here](#) for architecture overview

# Ocean Ambassadors

## Outreach

## Tech

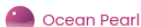


- Bounty for OP Material Translations in Local Language**  
Progress: 1/4 (green, purple, pink, purple)  
Date: Oct 15  
Comments: 6
- [Manage] Ocean Ambassadors Twitter**  
Progress: 1/4 (orange, purple, pink, purple)  
Date: Apr 21  
Comments: 1
- Manage Ambassador Outreach**  
Progress: 1/4 (orange, purple, pink, purple)  
Comments: 1
- Check Inn Members Credentials**  
Progress: 1/4 (orange, purple, pink, purple)  
Comments: 1
- Admin - mod Telegram**  
Progress: 1/4 (orange, purple, pink, purple)  
Comments: 3
- Admin - mod Discord**  
Progress: 1/4 (orange, purple, pink, purple)  
Comments: 3

- Done - Turtle**  
Progress: 1/4 (green, red, blue, dark blue)  
Task: 1 [Create] Awesome Ocean Protocol List  
Date: Apr 21  
Comments: 1  
Progress: 1/2 (purple)
- 5 [Implement] Project Tracker (Ocean Pearl)**  
Progress: 1/4 (blue, dark blue)  
Comments: 3  
Date: 11/11  
Progress: 0/2 (purple)  
Users: EP, MK
- 3 [Implement] OpenMined Integration**  
Progress: 1/4 (blue)  
Status: Rejected (red X)
- 1 Define Ocean Tech Ship as an Incubator**  
Progress: 1/4 (blue)  
Users: EP, MK

# OceanDAO: 100+ projects granted

[oceanpearl.io/projects](https://oceanpearl.io/projects)



Projects

Dao Proposals

Login via Wallet

## Project overview

See what the community has to offer.

<p><b>Evotegra</b> Unleash Data</p> <p>Extend the <i>EVO/2MP/TRFC/DE/200K</i> Dataset with new classes like pedestrian, car, motorcycle...</p>	<p><b>Ocean Vantage</b> Build &amp; Integrate</p> <p>Facilitate data offerings, trading and data consumption on the Ocean Protocol network by...</p>	<p><b>Project Coral</b> Outreach</p> <p>Project Coral is an outreach and community building initiative to bootstrap an Open Science Data...</p>	<p><b>Coral Market</b> Build &amp; Integrate</p> <p>Coral Market is open-source application for GDPR-compliant self-sovereign scientific data...</p>
<p><b>Ocean Pearl</b> Outreach</p> <p>We bootstrap a community-based project tracking platform for the Ocean ecosystem with an...</p>	<p><b>RugPullIndex</b> Build &amp; Integrate</p> <p>When the Ocean Protocol first launched their dynamically priced data set pools (a fork of Balance...</p>	<p><b>Algovera Onshore</b> Build &amp; Integrate</p> <p>Kaggle for Data Scientists utilizing Ocean Protocol.</p>	<p><b>Onshore OCEAN</b> Build &amp; Integrate</p> <p>Kaggle for Data Scientists utilizing Ocean Protocol.</p>
<p><b>DataUnion Foundation</b> Unleash Data</p> <p>We want to give everyone the ability to use their data for a better future and their own profit.</p>	<p><b>Data Whale</b> Build &amp; Integrate</p> <p>Data Whale is a startup that is inspired by the Ocean Protocol eco-system. We develop a vari...</p>	<p><b>RAZ Finance</b> Build &amp; Integrate</p> <p>RAZ simplifies ESG and investment data management while making the influence of impact an...</p>	<p><b>Ocean Greek Commun...</b> Outreach</p> <p>Create an Ocean Protocol Newsletter/Blog for the Greek Community</p>

<p><b>Longtail Financial</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for long tail financial products...</p>	<p><b>DeFi Future for Database...</b> Build &amp; Integrate</p> <p>Web3 banking is a blockchain-based digital asset. This is made for DAOs to create...</p>	<p><b>Go to Market Analysis</b> Build &amp; Integrate</p> <p>Helps you to create a market strategy for your business. It is a tool for entrepreneurs...</p>	<p><b>Data DAO</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Research Data Econ...</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for research data products...</p>
<p><b>The Pelican</b> Build &amp; Integrate</p> <p>A blockchain-based platform for the ocean ecosystem...</p>	<p><b>AI Synthetic Data Gener...</b> Build &amp; Integrate</p> <p>Generate synthetic data for machine learning and AI applications...</p>	<p><b>deftDAO</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Greenlight</b> Build &amp; Integrate</p> <p>A blockchain-based platform for the ocean ecosystem...</p>	<p><b>DataX</b> Build &amp; Integrate</p> <p>DataX is a decentralized exchange dedicated to trading jobs on Ocean Pearl...</p>
<p><b>Papers</b> Build &amp; Integrate</p> <p>A blockchain-based platform for the ocean ecosystem...</p>	<p><b>Swigle AI</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Ocean Digital Platform</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Ocean Dashboard</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>WorkPI</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>
<p><b>The Curators Project</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Secondlook</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Diversity</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Degen Triggers</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Posthuman AI</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>
<p><b>Ocean x DeFi</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Curators Project</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Project Aggregated</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Votex4PI</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Finalized Votes4PIs</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>
<p><b>Amazon of AI</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Ocean ML</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Improve DAO Voting</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>PoolScreener</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Homomorphic Encrypt...</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>
<p><b>AI Regulations</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>OCEAN Dashboard</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Voting Mechanism Des...</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Pool Screener</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>	<p><b>Disrupt MLS</b> Build &amp; Integrate</p> <p>Use the benefits of blockchain to create a new asset class for data products...</p>





Ocean Protocol

@oceanprotocol



Here's some highlights of @OceanDAO\_ since day one:

- 📍 106 projects funded, building and strengthening Ocean's ecosystem and the data economy
- 📍 121,672,417 OCEAN Voted
- 📍 194,868 OCEAN burned since Round 8

More on OceanDAO here: [oceanprotocol.com/dao](https://oceanprotocol.com/dao)

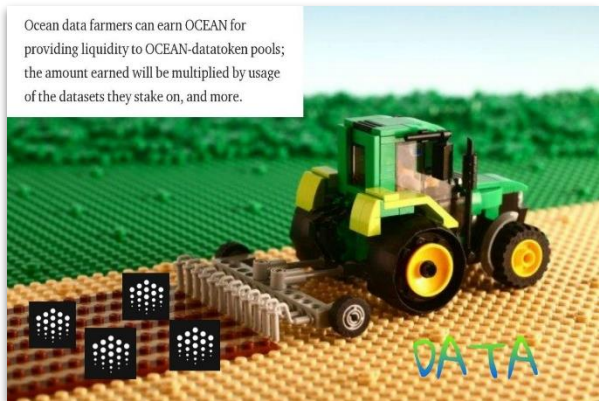


ocean



# Community Memes / Art

Ocean data farmers can earn OCEAN for providing liquidity to OCEAN-datatoken pools; the amount earned will be multiplied by usage of the datasets they stake on, and more.



 **Donnie**  
@DonnieBigBags

WHAT DID YOU UNLEASH @trentmc0

I was looking forward to a relaxing week of farming \$OCEAN @oceanprotocol

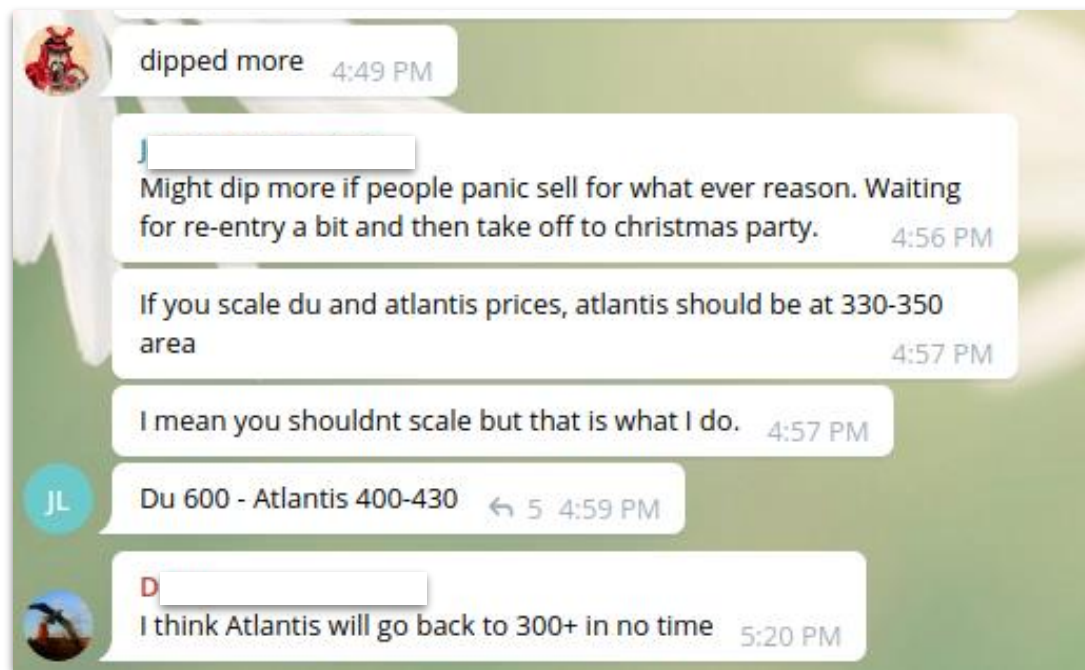
A horde of degens with an insatiable thirst for data have appeared.

No sign of slowing down either. After the election this is going to go CRAZY.

[t.me/Farm\\_Ocean](https://t.me/Farm_Ocean)



# A Crypto Telegram Chat... For Data Assets



# Some Ocean Collaborations





# Birth of an Open Data *Economy*

For the first time ever...

- Data marketplaces open to the world, on a public utility network substrate
- A new way for data creators to share data and to earn
- Automatic price discovery for data, via market mechanisms
- The protocol cast **data as an asset, and people went for it.** Initial Data Offerings etc.

Then...

- An ecosystem has formed around it
- 100+ projects, dozens of collaborators big and small



# Ocean and Edge Computing: Compute-to-Data



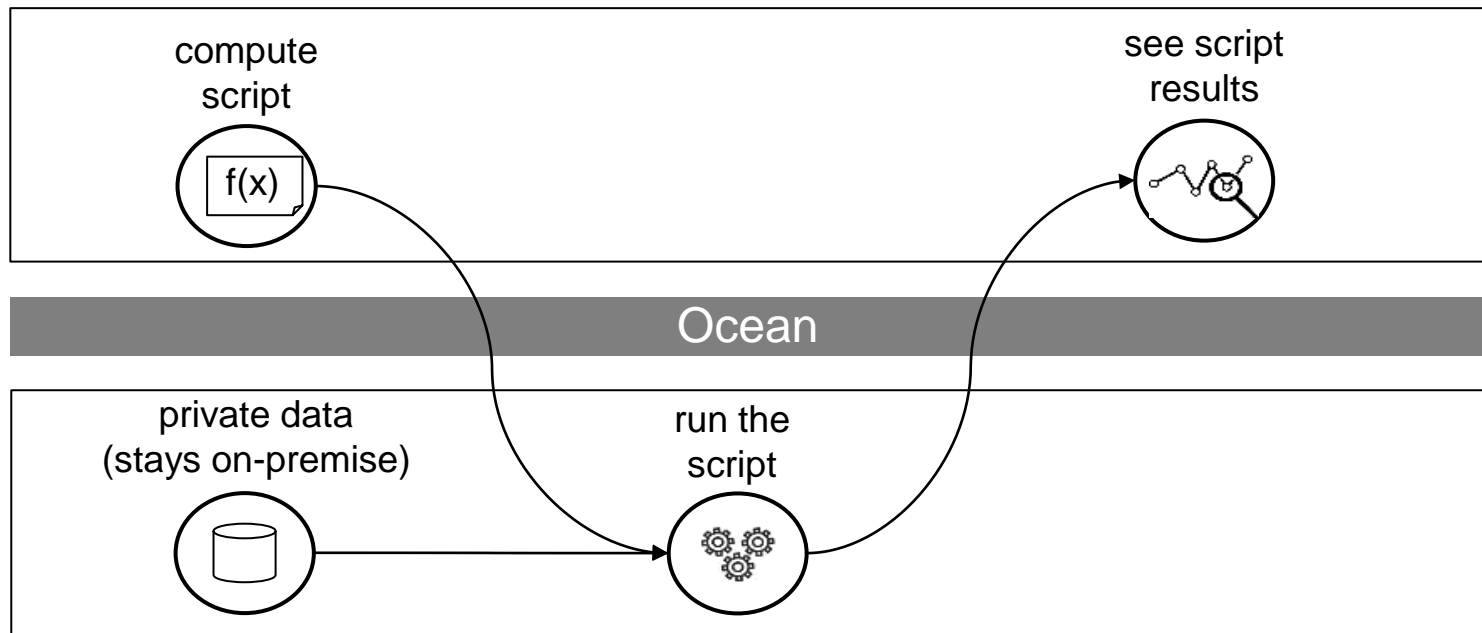
# Ocean Data Service 1/3: Static Uri

- Publisher encrypts the uri
- Uri gets decrypted upon 'consume'
- Available in backend and frontend (Ocean Market)
  
- Works for...
  - static files
  - dynamically-updated files
  - for Web2 REST APIs
  - and more. Super-flexible.



# Ocean Data Service 2/3: Compute-to-data

Buy & sell private data, while preserving privacy



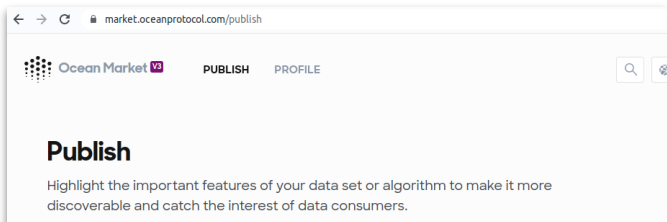
# Data Services 2/3: Future

Towards hundreds of specialized data services

- **Edge computing services** - EVE
- **Federated learning & analytics** - via Raven Protocol
- **Web3 data services** - Chainlink, TheGraph Curators, Streamr, etc
- **Web2 streaming data** - WebSockets, GraphQL Subscriptions, etc
- **More privacy-preserving / off-chain compute** - Secret, ZK-Snarks, MPC, HE, ..

# Compute-to-Data In Ocean Market

[blog.oceanprotocol.com/compute-to-data-is-now-available-in-ocean-market-58868be52ef7](https://blog.oceanprotocol.com/compute-to-data-is-now-available-in-ocean-market-58868be52ef7)

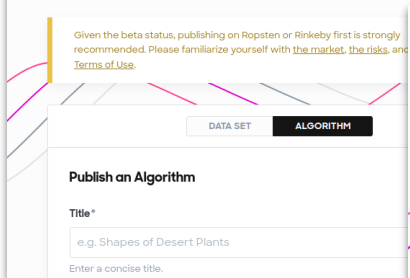


market.oceanprotocol.com/publish

Ocean Market **PUBLISH** PROFILE

## Publish

Highlight the important features of your data set or algorithm to make it more discoverable and catch the interest of data consumers.



Given the beta status, publishing on Ropsten or Rinkeby first is strongly recommended. Please familiarize yourself with the [market](#), the [risks](#), and the [Terms of Use](#).

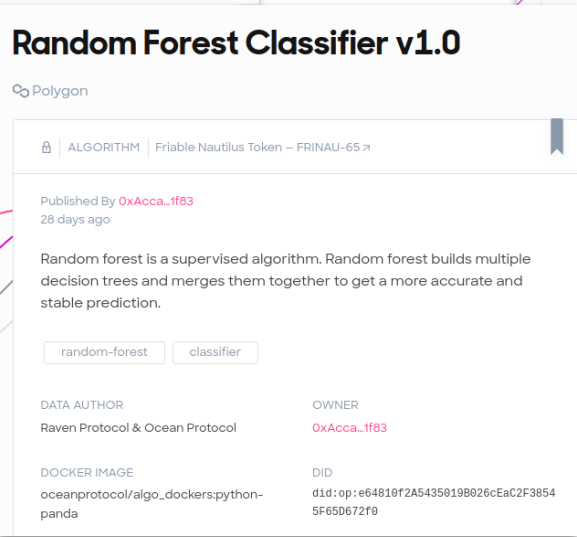
DATA SET ALGORITHM

### Publish an Algorithm

Title\*

e.g. Shapes of Desert Plants

Enter a concise title.



## Random Forest Classifier v1.0

Polygon

ALGORITHM | Friable Nautilus Token – FRINAU-65

Published By **OxAcCa..1f83**  
28 days ago

Random forest is a supervised algorithm. Random forest builds multiple decision trees and merges them together to get a more accurate and stable prediction.

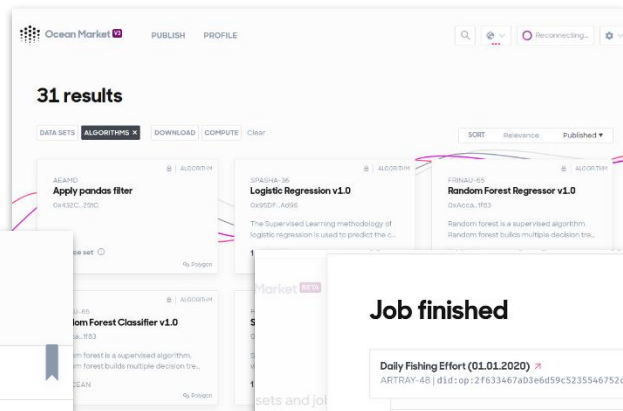
random-forest classifier

DATA AUTHOR: Raven Protocol & Ocean Protocol

OWNER: OxAcCa..1f83

DOCKER IMAGE: oceanprotocol/algo\_dockers:python-panda

DID: d1d:op:e64810f2A54359198026cEaC2F38545F65D672f0



Ocean Market **PUBLISH** PROFILE

## 31 results

DATA SETS ALGORITHMS DOWNLOAD COMPUTE CLEAR

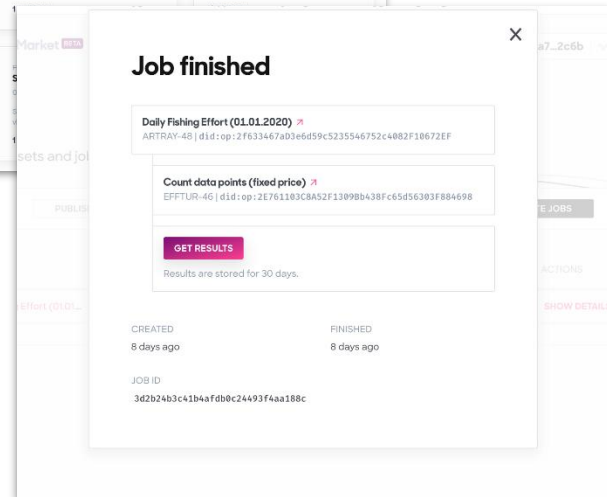
Sort: Relevance Published

ALGORITHM: Apply pandas filter  
Ox433C..239C

ALGORITHM: Logistic Regression v1.0  
Ox9EDF..A996

ALGORITHM: Random Forest Regressor v1.0  
OxAcCa..1f83

The Supervised Learning methodology of logistic regression is used to predict the c...



## Job finished

Daily Fishing Effort (01.01.2020)

ARTRAY-46 | d1d:op:2F633467aD3e6d59c5235546752c4082F10672EF

GET RESULTS

Results are stored for 30 days.

CREATED: 8 days ago

FINISHED: 8 days ago

JOB ID: 342b24b3c41baafdb0c24493f4aa188c



# C2D Quickstart via Ocean.py: Overview

[github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md](https://github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md)

## Quickstart

### Simple Flow

This stripped-down flow shows the essence of Ocean: simply create

[Go to simple flow](#)

### Marketplace flow

In this flow, a data asset is posted for sale in a marketplace, and pool.

[Go to marketplace flow](#)

### Compute-to-Data flow

This flow uses Ocean Compute-to-Data (c2d) to compute results

[Go to c2d flow](#)

## 3. Alice publishes algorithm

For this step, there are some prerequisites needed. If you want to replace the sample algorithm to do some dependency management. You can use one of the standard Ocean algorithms. Use the image name and tag in the `container` part of the algorithm metadata. This dock dependency installation e.g. in the case of Python, OS-level library installations, pip install more about docker image publishing.

In the same Python console:

```
# Publish ALG datatoken
ALG_datatoken = ocean.create_data_token('ALG1', 'ALG1', alice_wallet, blob=ALG_datatoken.mint(alice_wallet.address, to_wel(100), alice_wallet)
print(f"ALG_datatoken.address = '{ALG_datatoken.address}'")

# Specify metadata and service attributes, for "GPR" algorithm script.
# In same location as Branin test dataset. GPR = Gaussian Process Regression
ALG_metadata = {
    "main": {
        "type": "algorithm".
```

You can use the result however you like. For the purpose of this example, let's plot it.

```
import numpy
from matplotlib import pyplot

X0_vec = numpy.linspace(-5., 10., 15)
X1_vec = numpy.linspace(0., 15., 15)
X0, X1 = numpy.meshgrid(X0_vec, X1_vec)
b, c, t = 0.12918450914398066, 1.5915494309189535, 0.039788735772973836
u = X1 - b*X0**2 + c*X0 - 6
r = 10.*(1 - t) * numpy.cos(X0) + 10
Z = u**2 + r

fig, ax = pyplot.subplots(subplot_kw={"projection": "3d"})
ax.scatter(X0, X1, model, c="r", label="model")
pyplot.title("Data + model")
pyplot.show() # or pyplot.savefig("test.png") to save the plot as a .png file
```

Here are the steps:

1. Setup
2. Alice publishes data asset
3. Alice publishes algorithm
4. Alice allows the algorithm for C2D for that data asset
5. Bob acquires datatokens for data and algorithm
6. Bob starts a compute job
7. Bob monitors logs / algorithm output

## 6. Bob starts a compute job

Only inputs needed: DATA\_did, ALG\_did. Everything else can get computed as new

In the same Python console:

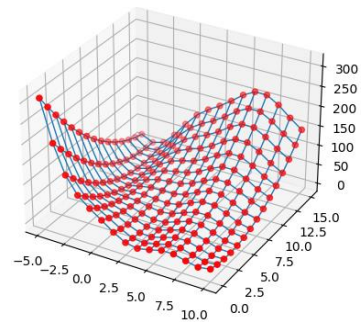
```
DATA_did = DATA_ddo.did # for convenience
ALG_did = ALG_ddo.did
DATA_DDO = ocean.assets.resolve(DATA_did) # make sure we operate on the correct did
ALG_DDO = ocean.assets.resolve(ALG_did)

compute_service = DATA_DDO.get_service('compute')
algo_service = ALG_DDO.get_service('access')

from ocean_lib.web3_internal.constants import ZERO_ADDRESS
from ocean_lib.models.compute_input import ComputeInput

# order & pay for dataset
```

Data + model



# C2D Quickstart via Ocean.py: Where to find

[github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md](https://github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md)



## Quickstart

### Simple Flow

This stripped-down flow shows the essence of Ocean: simply cre

[Go to simple flow](#)

### Marketplace flow

In this flow, a data asset is posted for sale in a marketplace, and pool.

[Go to marketplace flow](#)

### Compute-to-Data flow

This flow uses Ocean Compute-to-Data (c2d) to compute results

[Go to c2d flow](#)



# C2D Quickstart: Steps

[github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md](https://github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md)

1. Setup
2. Alice publishes data asset
3. Alice publishes algorithm
4. Alice allows the algorithm for C2D for that data asset
5. Bob acquires datatokens for data and algorithm
6. Bob starts a compute job
7. Bob monitors logs / algorithm output

# C2D Quickstart: Step 2: Publish dataset

[github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md](https://github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md)

```
# Publish DATA datatoken, mint tokens
from ocean_lib.web3_internal.currency import to_wei

DATA_datatoken = ocean.create_data_token('DATA1', 'DATA1', alice_wallet, blob=ocean.config.metadata_cache_uri)
DATA_datatoken.mint(alice_wallet.address, to_wei(100), alice_wallet)
print(f"DATA_datatoken.address = '{DATA_datatoken.address}'")

# Specify metadata & service attributes for Branin test dataset.
# It's specified using _local_ DDO metadata format; Aquarius will convert it to remote
# by removing `url` and adding `encryptedFiles` field.
DATA_metadata = {
    "main": {
        "type": "dataset",
        "files": [
            {
                "url": "https://raw.githubusercontent.com/trentmc/branin/main/branin.arff",
                "index": 0,
                "contentType": "text/text"
            }
        ]
    },
}
```

# C2D Quickstart: Step 3: Publish algorithm

[github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md](https://github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md)

```
# Publish ALG datatoken
ALG_datatoken = ocean.create_data_token('ALG1', 'ALG1', alice_wallet, blob=ocean.config.metadata_cache_uri)
ALG_datatoken.mint(alice_wallet.address, to_wei(100), alice_wallet)
print(f"ALG_datatoken.address = '{ALG_datatoken.address}'")

# Specify metadata and service attributes, for "GPR" algorithm script.
# In same location as Branin test dataset. GPR = Gaussian Process Regression.
ALG_metadata = {
    "main": {
        "type": "algorithm",
        "algorithm": {
            "language": "python",
            "format": "docker-image",
            "version": "0.1",
            "container": {
                "entrypoint": "python $ALGO",
                "image": "oceanprotocol/algo_dockers",
                "tag": "python-branin"
            }
        }
    },
    "files": [
        {
            "url": "https://raw.githubusercontent.com/trentmc/branin/main/gpr.py",
            "index": 0
        }
    ]
}
```

# C2D Quickstart: Step 4: dataset allows algorithm

[github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md](https://github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md)

```
from ocean_lib.assets.trusted_algorithms import add_publisher_trusted_algorithm
add_publisher_trusted_algorithm(DATA_ddo, ALG_ddo.did, config.metadata_cache_uri)
ocean.assets.update(DATA_ddo, publisher_wallet=alice_wallet)
```

# C2D Quickstart: Step 5: get data & alg assets

[github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md](https://github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md)

```
bob_wallet = Wallet(  
    ocean.web3,  
    os.getenv('TEST_PRIVATE_KEY2'),  
    config.block_confirmations,  
    config.transaction_timeout,  
)  
print(f"bob_wallet.address = '{bob_wallet.address}'")  
  
# Alice shares access for both to Bob, as datatokens. Alternatively, Bob might have bought these in a market.  
DATA_datatoken.transfer(bob_wallet.address, to_wei(5), from_wallet=alice_wallet)  
ALG_datatoken.transfer(bob_wallet.address, to_wei(5), from_wallet=alice_wallet)
```

# C2D Quickstart: Step 6: start compute

[github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md](https://github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md)

```
# order & pay for dataset
dataset_order_requirements = ocean.assets.order(
    DATA_did, bob_wallet.address, service_type=compute_service.type
)
DATA_order_tx_id = ocean.assets.pay_for_service(
    ocean.web3,
    dataset_order_requirements.amount,
    dataset_order_requirements.data_token_address,
    DATA_did,
    compute_service.index,
    ZERO_ADDRESS,
    bob_wallet,
    dataset_order_requirements.computeAddress,
)
```



```
# order & pay for algo
algo_order_requirements = ocean.assets.order(
    ALG_did, bob_wallet.address, service_type=algo_service.type
)
ALG_order_tx_id = ocean.assets.pay_for_service(
    ocean.web3,
    algo_order_requirements.amount,
    algo_order_requirements.data_token_address,
    ALG_did,
    algo_service.index,
    ZERO_ADDRESS,
    bob_wallet,
    algo_order_requirements.computeAddress,
)
```



```
compute_inputs = [ComputeInput(DATA_did, DATA_order_tx_id, compute_service.index)]
job_id = ocean.compute.start(
    compute_inputs,
    bob_wallet,
    algorithm_did=ALG_did,
    algorithm_tx_id=ALG_order_tx_id,
    algorithm_data_token=ALG_datatoken.address
)
print(f"Started compute job with id: {job_id}")
```

# C2D Quickstart: step 7: see output

[github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md](https://github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md)

In the same Python console, you can check the job status as many times as needed:

```
ocean.compute.status(DATA_did, job_id, bob_wallet)
```

This will output the status of the current job. Here is a list of possible results: [Operator Service Status description](#).

Once you get `{'ok': True, 'status': 70, 'statusText': 'Job finished'}`, Bob can check the result of the job.

```
result = ocean.compute.result_file(DATA_did, job_id, 0, bob_wallet) # 0 index, means we retrieve the
import pickle
model = pickle.loads(result) # the gaussian model result
```

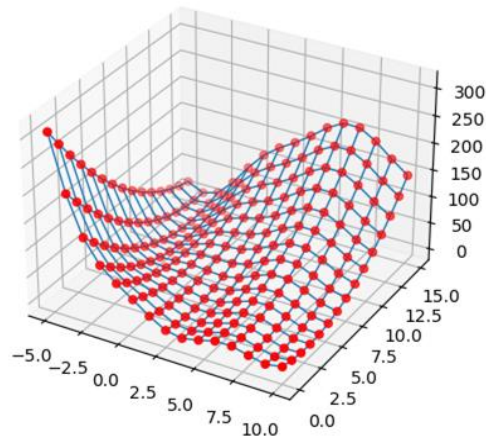
You can use the result however you like. For the purpose of this example, let's plot it.

```
import numpy
from matplotlib import pyplot

X0_vec = numpy.linspace(-5., 10., 15)
X1_vec = numpy.linspace(0., 15., 15)
X0, X1 = numpy.meshgrid(X0_vec, X1_vec)
b, c, t = 0.12918450914398066, 1.5915494309189535, 0.039788735727973836
u = X1 - b*X0**2 + c*X0 - 6
r = 10.*(1. - t) * numpy.cos(X0) + 10
Z = u**2 + r

fig, ax = pyplot.subplots(subplot_kw={"projection": "3d"})
ax.scatter(X0, X1, model, c="r", label="model")
pyplot.title("Data + model")
pyplot.show() # or pyplot.savefig("test.png") to save the plot as a .png f.
```

Data + model



# C2D Quickstart via Ocean.py: Recap

[github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md](https://github.com/oceanprotocol/ocean.py/blob/main/READMEs/c2d-flow.md)

## Quickstart

### Simple Flow

This stripped-down flow shows the essence of Ocean: simply create

[Go to simple flow](#)

### Marketplace flow

In this flow, a data asset is posted for sale in a marketplace, and pool.

[Go to marketplace flow](#)

### Compute-to-Data flow

This flow uses Ocean Compute-to-Data (c2d) to compute results

[Go to c2d flow](#)

## 3. Alice publishes algorithm

For this step, there are some prerequisites needed. If you want to replace the sample algorithm to do some dependency management. You can use one of the standard Ocean algorithms. Use the image name and tag in the `container` part of the algorithm metadata. This dock dependency installation e.g. in the case of Python, OS-level library installations, pip install more about docker image publishing.

In the same Python console:

```
# Publish ALG datatoken
ALG_datatoken = ocean.create_data_token('ALG1', 'ALG1', alice_wallet, blob=
ALG_datatoken.mint(alice_wallet.address, to_wal(100), alice_wallet)
print(f"ALG_datatoken.address = '{ALG_datatoken.address}'")

# Specify metadata and service attributes, for "GPR" algorithm script.
# In same location as Branin test dataset. GPR = Gaussian Process Regression
ALG_metadata = {
    "main": {
        "type": "algorithm".
```

You can use the result however you like. For the purpose of this example, let's plot it.

```
import numpy
from matplotlib import pyplot

X0_vec = numpy.linspace(-5., 10., 15)
X1_vec = numpy.linspace(0., 15., 15)
X0, X1 = numpy.meshgrid(X0_vec, X1_vec)
b, c, t = 0.12918450914398066, 1.5915494309189535, 0.039788735772973836
u = X1 - b*X0**2 + c*X0 - 6
r = 10.*(1 - t) * numpy.cos(X0) + 10
Z = u**2 + r

fig, ax = pyplot.subplots(subplot_kw={"projection": "3d"})
ax.scatter(X0, X1, model, c="r", label="model")
pyplot.title("Data + model")
pyplot.show() # or pyplot.savefig("test.png") to save the plot as a .png file
```

Here are the steps:

1. Setup
2. Alice publishes data asset
3. Alice publishes algorithm
4. Alice allows the algorithm for C2D for that data asset
5. Bob acquires datatokens for data and algorithm
6. Bob starts a compute job
7. Bob monitors logs / algorithm output

## 6. Bob starts a compute job

Only inputs needed: DATA\_did, ALG\_did. Everything else can get computed as new

In the same Python console:

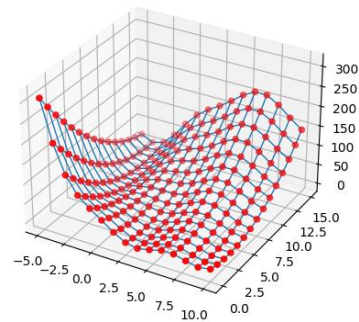
```
DATA_did = DATA_ddo.did # for convenience
ALG_did = ALG_ddo.did
DATA_DDO = ocean.assets.resolve(DATA_did) # make sure we operate on t
ALG_DDO = ocean.assets.resolve(ALG_did)

compute_service = DATA_DDO.get_service('compute')
algo_service = ALG_DDO.get_service('access')

from ocean_lib.web3_internal.constants import ZERO_ADDRESS
from ocean_lib.models.compute_input import ComputeInput

# order & pay for dataset
```

Data + model





# Algovera C2D \* Jupyter: Publish Model

<https://github.com/AlgoveraAI/onshore/blob/main/notebooks/4-publish-model.ipynb>

The screenshot shows the GitHub interface for the repository 'AlgoveraAI / onshore'. The repository is public and has 2 watchers, 1 star, and 0 forks. The navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, and Insights. The current file path is 'onshore / notebooks / 4-publish-model.ipynb'. A commit by 'richardblythman' is shown, with the message 'update notebooks to latest versions' and a commit hash of '6e339a7' from 22 days ago. The file is 260 lines (260 sloc) and 7.87 KB. The code content is as follows:

```
In [1]: from IPython.display import Image

In [2]: from ocean_lib.ocean.ocean import Ocean
        from ocean_lib.config import Config

        config = Config('config.ini')
        ocean = Ocean(config)

        print(f"config.network_url = '{config.network_url}'")
        print(f"config.block_confirmations = {config.block_confirmations.value}")
        print(f"config.metadata_cache_uri = '{config.metadata_cache_uri}'")
        print(f"config.provider_url = '{config.provider_url}'")

config.network_url = 'https://rinkeby.infura.io/v3/d163c48816434b0bbb3ac3925d6c6c80'
config.block_confirmations = 0
config.metadata_cache_uri = 'https://aquarius.oceanprotocol.com'
config.provider_url = 'https://provider.rinkeby.oceanprotocol.com'
```

# Algovera C2D \* Jupyter: Run Compute

<https://github.com/AlgoveraAI/onshore/blob/main/notebooks/5-run-compute.ipynb>

```
DATA_did,  
compute_service.index,  
ZERO_ADDRESS,  
wallet,  
dataset_order_requirements.computeAddress,  
)  
  
In [32]: # order & pay for algo  
algo_order_requirements = ocean.assets.order(  
    ALG_did, wallet.address, service_type=algo_service.type  
)  
ALG_order_tx_id = ocean.assets.pay_for_service(  
    ocean.web3,  
    algo_order_requirements.amount,  
    algo_order_requirements.data_token_address,  
    ALG_did,  
    algo_service.index,  
    ZERO_ADDRESS,  
    wallet,  
    algo_order_requirements.computeAddress,  
)  
  
In [33]: compute_inputs = [ComputeInput(DATA_did, DATA_order_tx_id, compute_service.index)]  
  
In [34]: job_id = ocean.compute.start(  
    compute_inputs,  
    wallet,  
    algorithm_did=ALG_did,  
    algorithm_tx_id=ALG_order_tx_id,  
    algorithm_data_token=alg_token.address  
)  
print(f"Started compute job with id: {job_id}")  
  
Started compute job with id: 94ed86622a6342178303dc4126e6c2d2  
  
In [37]: ocean.compute.status(DATA_did, job_id, wallet)  
  
Out[37]: {'ok': False, 'status': 31, 'statusText': 'Data provisioning failed'}  
  
In [ ]: result = ocean.compute.result_file(DATA_did, job_id, 0, wallet) # 0 index, means we retrieve the results from the first
```



# EVE \* Ocean Opportunities

# Possible EVE \* Ocean integration 1

Run an EVE-OS node that serves up streaming data as http or wss, and publish on Ocean Market



http  
or  
wss

Ocean Market **BETA** PUBLISH

## Publish

Highlight the important features of your data set to make it more discoverable and catch the interest of data consumers.

Given the beta status, publishing on Rinkeby first is strongly recommended. Please familiarize yourself with [the market](#), [the risks](#), and the [Terms of Use](#).

**Title\***  
e.g. Shapes of Desert Plants  
Enter a concise title.

**Description\***  
Add a thorough description with as much detail as possible. You can use [Markdown](#).

**File\***  
e.g. <https://file.com/file.json> ADD FILE  
Please provide a URL to your data set file. This URL will be stored encrypted after publishing.

**Sample file**  
e.g. <https://file.com/samplefile.json> ADD FILE  
Please provide a URL to a sample of your data set file. This file should reveal the data structure of your data set, e.g. by including the header and one line of a CSV file. This file URL will be publicly available after publishing.

**Access Type\***



Ocean Market **BETA** PUBLISH

## EVE Data Streams

### Atlantis Streams

Meretricious Manatee Token – MERMAN-13  
Published by [0x4f40...50B3](#) – [Etherscan](#)

Atlantis Stream is a crowdsourced dataset of real-time consumer data streams.

**Notice (11/17/2020)**

Atlantis Stream is currently pre-alpha, and will be migrating to compute-to-data when it becomes available. Stay up to date on any of our official channels below:

- Website
- Newsletter
- Telegram
- Twitter
- Discord
- GitHub

For business inquiries:

- Contact our founder
- Email us at [team@atlantisstream.io](mailto:team@atlantisstream.io)

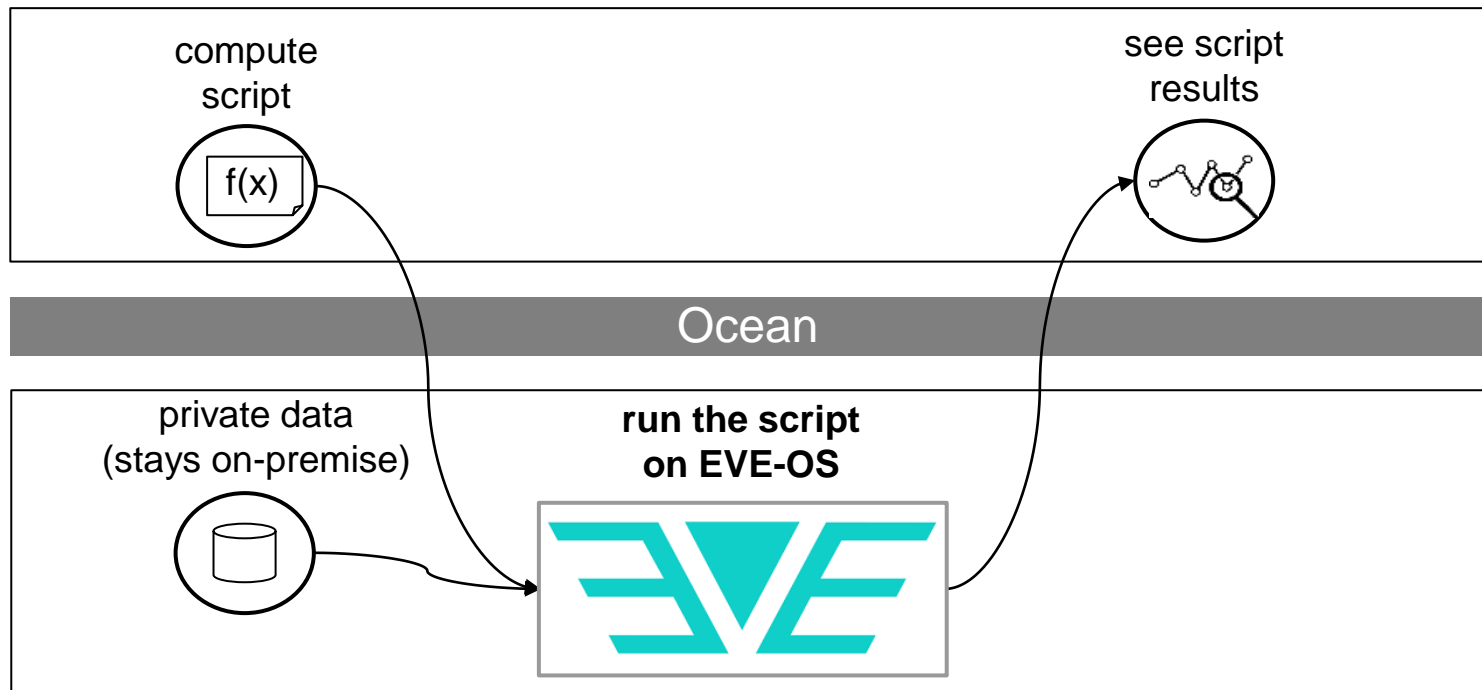
**How it works.**



ocean

# Possible EVE \* Ocean integration 2

Run EVE-OS inside Ocean C2D, to do compute at the edge while keeping data private



# EVE \* Ocean

- **Possible integrations:**
  - Run an EVE-OS node that serves up streaming data, and publish on Ocean Market
  - Run EVE-OS inside Ocean C2D, to do compute at the edge while keeping data private
- **Then EVE work could draw on benefits of Ocean infrastructure:**
  - Buy / sell / access datasets - backend interface, GUI interface
  - Buy / sell / access algorithms & compute
  - Fine-grained permissions for above, to handle GDPR, internal data sharing, ..
  - Data wallets & DAOs - secure management of above, for individuals & groups
  - Provenance in when/where data & compute is used
  - Quickly roll your own data market, algorithm market, data union, etc
  - Interface to DeFi - data exchanges, loans, data-backed stablecoins, ..
- Bonus: PR from both EVE & Ocean communities
- Bonus: Funding opportunities available via OceanDAO

# Funding for EVE \* Ocean, via OceanDAO

\$200K+ available per month. Anyone can apply

<https://oceanprotocol.com/dao>

OCEANDAO

## OceanDAO Grants

OceanDAO offers community grants curated by OCEAN holders, towards growing the Ocean ecosystem. Funding is available for building software that uses Ocean, unleashing data, outreach, and improving OceanDAO itself.

SUBMIT PROPOSAL

VIEW PROPOSALS

VOTE

### Grant Proposal Template

#### Part 1 - Proposal Submission (\*Mandatory)

Name of Project:

\_\_\_\_\_( $\geq 1$  words)\_\_\_\_\_

Proposal in one sentence:

\_\_\_\_\_(1 sentence)\_\_\_\_\_

Description of the project and what problem is it solving: (You can give more details in "proposal details" section farther down.)

\_\_\_\_\_(1 paragraph)\_\_\_\_\_

Grant Deliverables: (Target deliverables for the funding provided.)

- \_\_\_\_\_(Grant Deliverable 1)\_\_\_\_\_
- \_\_\_\_\_(Grant Deliverable 2)\_\_\_\_\_
- \_\_\_\_\_(Grant Deliverable 3)\_\_\_\_\_
- ...`



# Conclusion



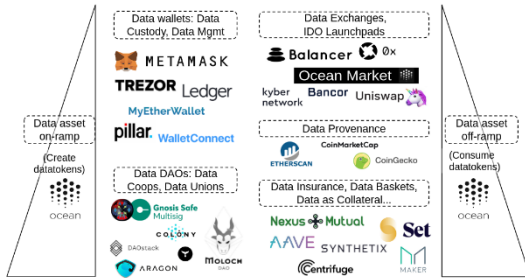
# What is Ocean?

Ocean is...

1. **A community / ecosystem** of individuals and orgs driving to the mission  
(initiated by Ocean Protocol Foundation)
2. **A set of tools** as public infrastructure to facilitate the mission
3. **A token (OCEAN)** with incentives to grow & sustain the ecosystem

# We are at the birth of an Open Data Economy

- For the first time ever, **data as an asset**, on open yet privacy-preserving data markets
- Leveraging the tools of crypto, from data wallets to DAOs to DEXes
- An ecosystem has formed. 100+ projects, dozens of collaborators big and small

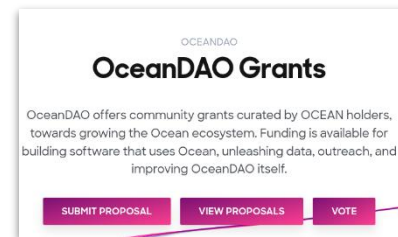
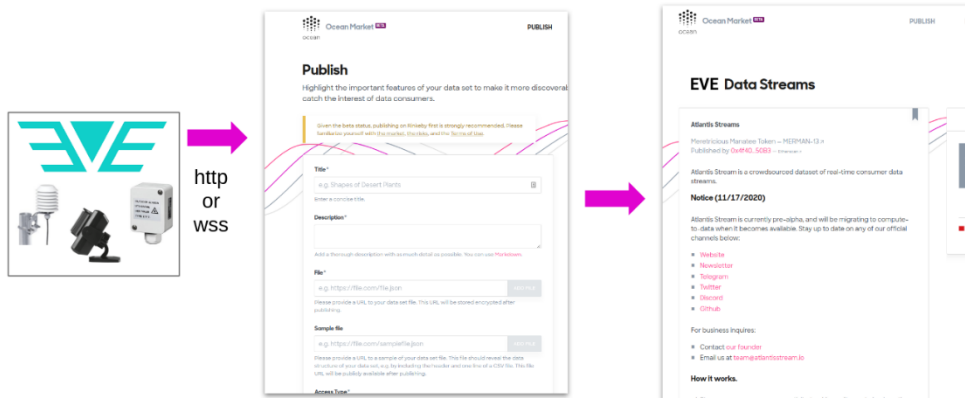


<b>Evotegra</b> Unleash Data Extend the EVO2MR/FRAC/ET/200K Dataset with new classes like pedestrian, car, motorcycle...	<b>Ocean Vantage</b> Build & Integrate Facilitate data offerings, trading and data consumption on the Ocean Protocol network by...	<b>Project Coral</b> Outreach Project Coral is an outreach and community building initiative to bootstrap an Open Science Data...	<b>Coral Market</b> Build & Integrate Coral Market is open-source application for OADR-compliant self-sovereign scientific data...
<b>Ocean Pearl</b> Outreach We bootstrap a community-based project tracking platform for the Ocean ecosystem with on...	<b>RugPullIndex</b> Build & Integrate When the Ocean Protocol first launched their dynamically priced data set pools (a fork of balancer...	<b>Algovera Onshore</b> Build & Integrate Kagggle for Data Scientists utilizing Ocean Protocol.	<b>Onshore OCEAN</b> Build & Integrate Kagggle for Data Scientists utilizing Ocean Protocol.
<b>DataUnion Foundation</b> Unleash Data We want to give everyone the ability to use their data for a better future and their own profit.	<b>Data Whale</b> Build & Integrate Data Whale is a startup that is inspired by the Ocean Protocol ecosystem. We develop a variat...	<b>RAZ Finance</b> Build & Integrate RAZ simplifies ESO and investment data management while making the influence of impact on...	<b>Ocean Greek Commu...</b> Outreach Create an Ocean Protocol Newsletter/Blog for the Greek Community

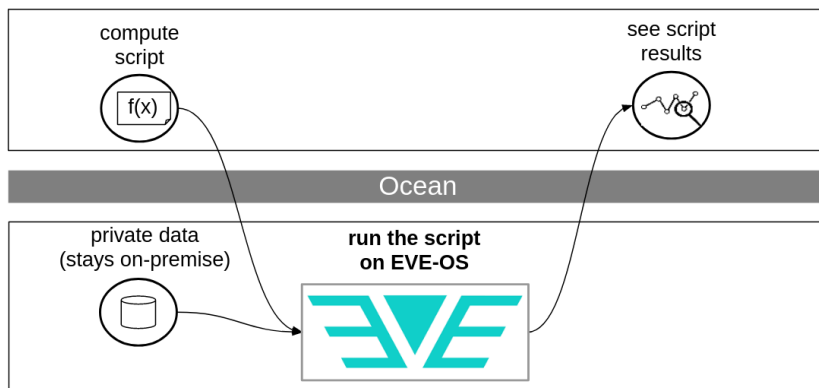


# There's opportunity in Ocean \* EVE

EVE-OS for data from the edge; EVE-OS running C2D. Grants available!



<https://oceanprotocol.com/dao>



Trent McConaghy  
[@trentmc0](https://twitter.com/trentmc0)



# Resources

Site [oceanprotocol.com](https://oceanprotocol.com)

Code [github.com/oceanprotocol](https://github.com/oceanprotocol)

Chat [discord.com/invite/TnXjkR5](https://discord.com/invite/TnXjkR5)



ocean